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OF

POPULAR EDUCATION

COMPILED AND EDITED BY

R. S. PEALE

ASSISTED BY EMINENT SPECIALISTS IN EACH DEPARTMENT.

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PREFACE

GIBBON has well said: "Every man has two educations: one which he receives from others, and one, more important, which he gives to himself." Sir Walter Scott emphasizes the sentiment when he says, using almost the same words: "The best part of every man's education is that which he gives to himself."

The mind has been endowed with no more laudable or profitable ambition than that of self-improvement. The educated man, in every walk of life, carries with him his own capital—a capital unaffected by monetary crises; an investment whose interest is not regulated by the success of speculation; a treasure which none can dispute and of which none can deprive him. It is his greatest source of pleasure and profit, and it is the best legacy he can leave to his children.

In preparing the present volume, it has been the endeavor of the publishers to omit no branch of study that may be useful in the busy life of these busy times, and a perusal of the book will convince the reader that every subject has been treated concisely and thoroughly, presenting in an attractive shape all those points that go to make a finished education. Practical application to the affairs of life has been constantly kept in view, and throughout has been maintained a systematic arrangement making reference easy, and a degree of artistic typography pleasing to the eye, making the search for knowledge doubly pleasurable.

To the youth who has not had the advantages of an early education is here offered a means of thorough self-instruction—a complete commercial college bound in a book. The business man who consults these pages will find every variety of forms used in business life, and will not seek in vain for such legal information as may be needed. The professional man will have in this work a *vade mecum* of useful and practical information, saving both the expense of purchasing and the time of consulting a vast number of volumes.

It is customary to burden the initial pages of a new publication with apologies. The publishers of this book have none to make. They have invested a large amount of diligent, painstaking labor and research, and no small amount of capital, and recognize the fact that they must depend upon merit and excellence for success.

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Educational Department.

The Points Which Go to Make a Finished Education.

LANGUAGE is a collection of certain articulate sounds used as the signs of our ideas, or of certain written characters which represent those sounds. Language owes its origin to the imitation and modification, aided by signs and gestures, of various natural sounds, the voices of other animals and man's own instinctive cries. Language consists in the oral utterances of sounds which usage has made the representatives of ideas. When two or more persons customarily annex the same sounds to the same ideas the expression of these sounds by one person communicates his ideas to another. This is the primary sense of *language*, the use of which is to communicate the thoughts of one person to another through the organ of hearing. Articulate sounds are represented by letters, marks or characters, which form words.

Language is sometimes denoted by other terms; as speech, tongue, idiom, dialect.

Language is generic, denoting any mode of conveying ideas; as the language of the deaf and dumb.

Speech is the language of articulate sounds and contemplates language as broken or cut into words of different kinds; as the parts of speech, the gift of speech.

Tongue is the Anglo-Saxon term for the language of a particular people; as the English tongue.

Idiom denotes the form of the construction peculiar to a language.

Dialects are varieties of expression which spring up in different parts of a country, or in different professions, etc.

Origin of Language.

There are various ways by which men can communicate with one another. They can make *gestures*, utter *cries*, speak *words*, draw *pictures*, write *characters* or *letters*. Articulate language is peculiar to man; but he uses, in common with the lower animals, inarticulate cries to express his meaning, aided by gestures and the movements of the muscles of his face. This especially holds good with the more simple and vivid feelings which are but little connected with our higher intelligence. Our cries of pain, fear, surprise, anger, together with their appropriate

actions, and the murmur of a mother to her beloved child, are more expressive than any words. It is not the mere power of articulation that distinguishes man from other animals, for, as every one knows, parrots can talk; but it is his large power of connecting definite sounds with definite ideas; and this obviously depends on the development of his mental faculties.

Gesture Language.

When for any reason people cannot talk together by word of mouth, they take to conversing by *gestures*, in what is called dumb show or pantomime. Imagine a simple case. A boy opens a parlor door; his brother sitting there beckons to him to be quiet, for his father is asleep; the boy now intimates by signs that he has come for the key of the box, to which his brother answers by signs that it is in the pocket of his coat hanging in the hall, concluding with a significant gesture to be off and shut the door quietly after him. This is the gesture language. Gesture language has little power of expressing abstract ideas.

The next step in the origin of language is to show the workings of another sort of signs, namely, the sounds of the human voice. Sounds of voice may be spoken to express our feelings and thoughts on much the same principle that gestures are made, except that they are heard instead of seen. One kind of sounds used by men as signs consists of emotional cries or tones. Men show pain by uttering groans as well as by distortion of the face; joy is expressed by shouts as well as by jumping; when we laugh aloud, the voice and features go perfectly together. Such sounds are gestures made with the voice —sound-gestures.

The next class of sounds used as expressive signs are imitative. As a deaf and dumb child expresses the idea of a cat by imitating the creature's act of washing its face, so a speaking child will indicate it by imitating its *miaou*.

Natural Language.

Now, joining gesture-actions and gesture-sounds, they will form together what may be called a Natural Language. This natural language really exists, and in wild regions really has some practical value, as when a European traveller makes shift to converse in it with a party of Australians around their camp-fire or with a Mongol family in their felt tent. What he has to do is to act his most expressive mimic gestures, with a running accompaniment of exclamations and imitative noises. Here there is found a natural means of intercourse, much fuller than mere pantomime of gestures only. It is a common language of all mankind, springing so directly from the human mind that it must have belonged to our race from the most remote ages and most primitive conditions in which man existed. Language is one branch of the great art of sign-making or sign-choosing, and its business is to hit upon some sound as a suitable sign or symbol for each thought. It is maintained by the best philologists that emotional and imitative sounds are the very source of all language, and that, although most words now show no trace of such origin, this is because they have quite lost it in the long change of pronunciation and meaning they have gone through, so that they have now become mere symbols. Besides the emotional and imitative ways, there were several other devices by which man chooses sounds to express thoughts. That there was always some kind of fitness or connection which led to each particular sound being taken to express a particular thought is more than likely, and in this seems to lie the most reasonable opinion to be held as to the famous problem of the origin of language. So far as language can be traced to its actual source, that source does not lie in some lost gifts or powers of man, but in a state of mind still acting, and not above the level of children and savages. The origin of language was not an event which took place long ago, once for all, and then ceased entirely.

On the contrary, man still possesses, and uses when he wants it, the faculty of making new, original words by choosing fit and proper terms. But he now seldom puts this faculty to serious use, for this good reason, that whatever language he speaks has its stock of words ready to furnish an expression for almost every fresh thought that crosses his mind.

Articulate Language.

A sentence being made up of its connected sounds as a limb is made up of its joints, we call language *articulate*, or jointed, to distinguish it from the *inarticulate*, or "unjointed," sounds uttered by the lower animals. Conversation by gestures and exclamations, as was shown above to be a natural language common to mankind, is half-way between the communications of animals and full human speech. Every people, even the smallest and most savage tribe, has an articulate language carried on by a whole system of sounds and meanings which serves the speaker as a sort of catalogue of the contents of the world he lives in, taking in every subject he thinks about, and enabling him to say what he thinks about it. As in the course of ages man's knowledge became wider and his civilization more complex, his language had to keep up with them. Comparatively few and plain expressions had sufficed for his early rude condition, but now more and more terms had to be added for the new notions, implements, arts, offices and relations of more highly organized society. New words were made by adding and combining old ones, carrying on old words from the old state of things to do duty to the new, shifting their meanings and finding in any new thought some resemblance to an old one that would serve to give it a name. As terms increase in every nation and the vast field of language is filled up, words, by a thousand fanciful and irregular methods of derivation and composition, deviate widely from the primitive character of their roots and lose old resemblance in sound of the things signified. Words as we now use them, taken in general, may be considered as symbols, not imitations; as arbitrary or instituted, not natural, signs of ideas.

Classification of Languages.

The classification of the different languages of the earth into a few great families is due to the science of comparative philology and is of recent origin. Till the latter end of the last century the preference as to the antiquity of language was usually given to the Hebrew, but a striking improvement of linguistic study is dated from the discovery of the Sanskrit, the ancient language of the northern parts of Hindustan, in the latter part of the last century. A belief in an affinity between languages and a separation of them into certain great groups or families then arose.

The languages of the world are divided into four great branches, viz., the **Aryan,** or Indo-European, the most important; next the **Semitic,** the **Turanian** and the **Dravidian.**

The **Turanian** family, called also the Tataric, or Altaic, includes the numerous and widely different languages of the Manchoos, the Mongols, the Turks (in Asia and Europe), the Magyars (in Hungary), the Finns (in Russia), and a multitude of other tribes.

The **Dravidian** includes the Tamil and the dialects in Ceylon and the islands off Asia, etc.

The **Semitic** includes the Hebrew, Syriac, Arctic and Ethiopic, Basque (in the Pyrenees), etc.

The **Indo-European,** to which extensive family the English language belongs, is divided into six principal branches.

I. The *Indian* branch, represented by the Sanskrit, which has now ceased to be spoken, but is the mother of the Hindustani, Bengali, Mahratti and the other numerous dialects of modern India.

II. The *Medo-Persic* branch, at the head of which is the Zend, in which the Zend-Avesta is composed and the cuneiform inscriptions of

Cyrus, Darius and Xerxes. Next follow the Fehlevi, of the Sarsanian dynasty; the Parsee, in which the national poem of Ferdusi is written (A. D. 1000), and lastly the modern Persian.

III. The *Celtic* branch, divided into two dialects, the Gaelic and the Cymric; the former comprising the Irish or Erse, the Scottish Gaelic or Highland-Scotch, and the Manx of the Isle of Man; and the latter Welsh, the Cornish (now extinct) and the Armorican of Britanny.

IV. The *Græco-Latin* branch, comprising the two ancient classical languages, and the so-called Romanic languages, derived from the Latin, which are six in number, namely; the French, Italian, Spanish, Portuguese, Wallachian, and the Roumanish or Romanese spoken in the Grisons in Switzerland.

V. The *Teutonic* branch, which comprises all the different German and Scandinavian dialects.

VI. The *Slavonic* branch, divided into three principal classes: 1. The Lettic, comprising the Lithuanian, the Old Prussian (now extinct) and the Lettish, the language of Kurland and Livonia. 2. The Western Slavonic, comprising the Polish; the Bohemian or Tchechian, spoken in Bohemia; the Slovakian, spoken by the Slovaks in Hungary, and the Wendian, spoken in Lusatia. 3. The Eastern Slavonic, comprising the Old Slavonic, preserved in the translations of the Bible made by Cyrillus in the ninth century, and its derivate dialect, the Bulgarian; the Russian, Servian, Croatian and Slovinian.

The **Teutonic** branch of the Indo-European family of languages is divided into two great branches, the German and Scandinavian.

The **German** is divisible into three principal dialects, the Mœso-Gothic, the Low German and the High German, the two latter being so called because the Low German is spoken by the inhabitants of the low or flat country near the shores of the German Ocean, while the High German belongs to the higher country in the interior.

1. The **Mœso-Gothic**, the most easterly of all the German dialects, has long ceased to be spoken, but is preserved in the translation of the gospels by Ulfilas.

2. The **Low German** comprised the following dialects: (1) *Anglo-Saxon*, which was cultivated with great success in England, and in which the second most ancient specimens of the Germanic language are preserved. (2) The *Old Saxon*, so called to distinguish it from the Anglo-Saxon in England, formerly spoken in Westphalia. (3) The *Frisian*, now confined to a small district in Holland. (4) The *Dutch*, the present language of Holland. (5) The *Flemish*, spoken in many parts of Belgium.

3. The **High German** comprises the Old High German, from the seventh to the eleventh century; the Middle High German, from the twelfth century to the Reformation, and the New High German, which since Luther's time has been the literary language of Germany.

The **Scandinavian** branch, of which the most ancient language is the Old Norse, the language of Norway, is represented by the Icelandic, which was carried into Iceland by the Norse colonists in the ninth century and which continues to be spoken on that island with little alteration. On the Continent the Old Norse is represented by the Swedish, Danish and Norwegian, of which the last has now become a mere *patois*.

The following table exhibits the relationship of the different Teutonic languages:

- **Teutonic**
  - I. German
    - 1. *Mœso-Gothic.*
    - 2. *Low German.*
      - (i.) Anglo-Saxon. English.
      - (ii.) Old Saxon.
      - (iii.) Frisian.
      - (iv.) Dutch.
      - (v.) Flemish.
    - 3. *High German.*
      - (i.) Old High German.
      - (ii.) Middle High German.
      - (iii.) New High German.
  - II. Scandinavian
    - 1. *Old Scandinavian.*
      - (i.) Icelandic.
      - (ii.) Ferroic.
    - 2. *Modern Scandinavian.*
      - (i.) Danish.
      - (ii.) Swedish.
      - (iii.) Norwegian.

THE English Language.

Its Origin, Growth, Development and Present Form.

THE English Language is the descendant and representative of the Anglo-Saxon. It has lost very much of the inflection and very many of the words which belong to the parent language; and on the other hand it has borrowed words largely, to the extent even of half its vocabulary, from other languages, especially the French and the Latin. Yet all the inflections that remain in it, and most of its formative endings, the pronouns and particles, and in general the words which are in most frequent and familiar use, have come to it from the Anglo-Saxon. All the constituents of the English Language as it now exists are presented in a condensed form as follows:

1st. Saxon and Danish words, of Teutonic and Gothic origin.
2nd. British or Welsh, Cornish and Armoric, of Celtic origin.
3rd. Norman, a mixture of French and Gothic.
4th. Latin.
5th. The French, chiefly Latin corrupted.
6th. Greek.
7th. A few words directly from the Italian, Spanish, German, and other Continental languages of Europe.
8th. A few foreign words introduced by commerce or by political and literary intercourse.

"Suppose," says Dr. Trench (*English Past and Present*), "the English language to be divided into a hundred parts; of these, to make a rough distribution, sixty would be Saxon, thirty would be Latin (including of course the Latin which has come to us through the French), five would be Greek; we should then have assigned ninety-five parts, leaving the other five, perhaps too large a residue, to be divided among all the other languages from which we have adopted isolated words."

The English Language from the time of its first formation has been subject to continual changes. Old words have been from time to time falling away, and new ones have been formed and brought into use.

The oldest Saxon manuscript dates about A.D. 700, and the Lord's Prayer then ran thus:

"Uren fader thic arth in heofnas, sic gehalgud thin noma, to cymeth thin ric, sic thin willa sue is in heofnas, and in eortho," etc.

The Modern Period of English commenced with the middle of the sixteenth century, and its present form was then assumed.

Though it is impossible to assign any exact date to the change of Anglo-Saxon into English, the chief alterations in the language may be arranged approximately under the following epochs:

I. Anglo-Saxon, from A.D. 450 to 1150.
II. Semi-Saxon, from A.D. 1150 to 1250, so called because it partakes strongly of the characteristics of both Anglo-Saxon and Old English.
III. Old English, from A.D. 1250 to 1350.
IV. Middle English, from A.D. 1350 to about 1550.
V. Modern English, from A.D. 1550 to the present day.

ANGLO-SAXON.

A.D. 700.

From the Anglo-Saxon Version of Matthew, Eighth Chapter.

Sódlice thâ se Hælend of tham munte nydher astâh, thâ fyligdon him mycle mânio. Thâ genéalæhte ân hreófla tô him and hine tô him ge-eádhmêdde, and thus cwâdh: Drihten, gyf thu wylt' thu miht me geclænsian. Thâ âstrehte se Hælend hys hand and hrepode hyme and thus cwâdh: Ic wylle, béo geclænsod And hys hréofla wâs hrâdlice geclænsod. Thâ cwâdh se Hælend tô him: Warna the thâl thu hyt nænegum men ne secge; ac gang, âteów the tham sacerde, and bring hym tha lâc the Moyses bebeád, on hyra gecydhnesse.

Translation.—[Words wanting in the original are introduced in italics; explanations or kindred words are inserted in brackets.] Shortly when the Savior from the mountain came-down, there followed him *a* great multitude [mickle, many]. Then came-near a leper to him, and him[self] to him humbled and thus said [quoth]: Lord, if thou wilt, thou mayest me cleanse. Then stretched-out the Savior his hand and touched him and thus said: I will, be cleansed. And his leprosy was quickly cleansed. Then said the Savior to him: Beware [warn thee] that thou it to no man say; but go, show thee to-the priest [Latin, sacerdos] and bring them the gift that Moses bade, for their information.

A.D. 700.

From Beowulf.

Thâ com of môre under mist-hleodum
Grendel gongan, godes yrre bâr.
Mynte se mânscadha manna cynnes
sumne besyrwan in sele thâm heán,
wôd under wolcnum tô thâs the he winreced
goldsele gumend gearwost wisse
fættum fâhne: ne wäs thät forma sidh
thät he Hrôdhgâres hâm gesôhte.

Translation.—Then came from *the* moor under mist-hills Grendel to-go, God's ire *he* bare. *He* meant, the wicked destroyer [scather], of men's kin some *one* to-ensnare in the high hall, raging under welkin, seeing that *the* friend-mansion, *the* gold-hall of men, he most-readily knew, with jewels bedecked; nor was that *the* first [foremost] time that Hrothgar's home he visited [sought].

A.D. 800.

From King Alfred's Translation of Boethius.

On thâre tîde the Gotan of Scidhdhiu-mægdhe widh Rômanarice gewin upâhôfon, and mid heora cyningum, Rædgota and Ealleríca wæron hâtne, Rômana-bwih âbræcon and call Italiarice, thät is betwux tham muntuin and Sicilia tham eálonde, in anwald gerehton; and thâ âfter thâm forespreccnan cyningum Theódríc fêng tô tham ilcan rice.

Translation.—In the time that *the* Goths from Scythia-country against *the* Roman-empire commenced war [war upheaved], and with their kings, *who* Rhadagast and Alaric were called [hight], *the* Roman-city sacked [broke] and all Italy-realm, that is betwixt the mountains and Sicily the island, into *their* dominion reduced; and when after the aforesaid [fore-spoken] kings Theodoric obtained [took to] the same kingdom.

A.D. 1100.

From the Latter Part of the Saxon Chronicle.

Thissum thus gedône, se cyng Willem cearde ongeán tô Normandige. Reówlic thing he dyde and reówlicor him gelamp. Hû reówlicor? Him geyfelade, ôdh thät him stranglice eglade. Hwät mâg ic teollan? Se scearpa deádh, the ne forlæt ne rice menn ne heáne, se hine genam. He swealt on Normandige on thone nêhstan dâg âfter nativitas Sce Marie; and man beburgede hine on Cathum ât Sce Stephanes mynstre; ærer he hit ârærde, and sidhdhan mânifâldlice gegôdade.

Translation.—This being thus done, the king William returned again to Normandy. *A* rueful thing he did and *a* ruefuller befel him. How ruefuller? He [literally, to him] grew-ill, till that *it* strongly ailed him. What may I tell? The sharp death, that *does* not let-pass neither rich men nor poor, thus took him. He died in Normandy on the next day after the nativity of St. Mary; and men [man] buried him in Caen at St. Stephen's minster; earlier he up-reared it and afterward [sithence] manifoldly enriched [conferred-goods-on] *it*.

SEMI-SAXON.

A. D. 1150.

From Layamon's Brut.—Earlier Text.

An preost wes on leoden,
Layamon wes ihoten:
he wes Leouenadhes sone;
lidhe hein beo drihten;
he wonede at Ernleye,
at œdhelen are chirechen,
uppen Scuarne stathe.

Translation.—*There* was a priest on earth [*or* in *the* land] *who* was named Layamon; he was son of Leovenath—may *the* Lord be gracious to him!—he dwelt at Ernley at a noble church upon Severn's bank.

A.D. 1250.

From Layamon's Brut.—Later Text.

A priest was in londe
Laweman was [i] hote:
he was Leucais sone;
lef him beo drihte:
he wonede at Ernleie
wid than gode cnithe,
uppen Scuarne.

Translation.—*There* was a priest in *the* land *who* was named Layamon; he was a son of Leuca—may *the* Lord be gracious to him!—he dwelt at Ernley with the good knight upon *the* Severn.

A.D. 1250.

From the Ormulum.

Nu, brotherr Wallterr, brotherr min
affterr the plæshess kinde;
annd brotherr min i Crisstenndom
thurrh fulluhht annd thurrh trowwthe;
annd brotherr min i Godess hus,
yet o the thride wise,
thurrh thatt witt hafenn takenn ba
an reyhellboc to follyhenn,
unnderr kanunnkess had annd lif,
swa summ Sannt Awwstin sette.

Translation.—Now, brother Walter, brother mine after the flesh's kindred; and brother mine in Christendom through baptism and

through truth; and brother mine in God's house, yet on the third wise, seeing [through] that we-two have taken both one rule-book to follow, under *a* canonic's hood and life, so as St. Austin set.

OLD ENGLISH.

A.D. 1300.

From the Chronicle of Robert of Gloucester.

Thus com lo! Engelond into Normannes honde,
and the Normans ne couthe speke tho bote her owe speche,
and speke French as dude atom, and here chyldren dude al so
so that heymen of thys lond, that of her blod come, [teche:
holdeth all theilke speche that hii of hem nome.
vor bote a man couthe French, me tolth of hym wel lute.

Translation.—Thus came, lo! England into *the* Normans' hand, and the Normans knew not *how to* speak then but their own speech, and spoke French as *they* did at home, and their children did all so teach, so that *the* high-men of this land, that of their blood came, hold all the-same [the ilk] speech that they of them took: for unless [but] a man should-know French, men reckon [tell] of him very [well] little.

MIDDLE ENGLISH.

A.D. 1350.

From the Travels of Sir John Mandeville.

After for to speke of Jerusalem the holy cytee, yee schull understonde that it stont* full faire betwene hilles, and there be no ryveres ne welles, but water cometh by condyte from Ebron. And yee schulle understonde that Jerusalem of old tyme, unto the tyme of Melchisedech, was cleped† Jebus; and after it was clept Salem, unto the tyme of Kyng David, that put these two names to gider, and cleped it Jerosolomye. And after that men cleped it Jerusalem, and so it is clept yit.

A.D. 1350.

From the Vision of Pier's Ploughman.

In a somer seson when softe was the sonne,
I shoop me into shroudes‡ as I a sheep§ weere.
in habit as a heremite unholy of werkes,
wente wide in this world wondres to here.

A.D. 1375.

From the Prologue to Chaucer's Canterbury Tales.

When that Aprille with his schowres swoote‖
the drought of Marche hath perced to the roote,
and bathud evrry veyne in swich licour,
of which vertue engendred in the flour.

A.D. 1380.

From Wycliffe's Translation of the Bible.

Forsothe when Jhesus hadde comen doun fro the hill, many cumpanyes folewiden hym. And loo! a leprouse man cummynge worshipide hym, sayinge: Lord yif thou wolt, thou maist make me clene. And Jhesus holdynge forthe the hond, touchide hym, saying: I wole, be thou maad clene. And anoon the lepre of hym was clensid. And Jhesus saith to hym: See, say thou to no man: but go shewe thee to prestis, and offre that yifte that Moyses comaundide, into witnessing to hem.

* *Stont*, standeth.
† *Cleped, clept*, called.
§ *Sheep*, shepherd.
‡ *Shoop me into shroudes*, put me into clothes.
‖ *Swoote*, sweet.

A.D. 1400.

From Purvey's Recension of Wycliffe's Translation.

But whanne Jhesus was come doun fro the hil, mych puple suede hym. And loo! a leprouse man cam and worschipide hym and seide: Lord if thou wolt thou maist make me clene. And Jhesus helde forth the hoond and touchide hym and seide: Y wole: be thou maad cleene. And anoon the lepre of hym was clensid.

A.D. 1450.

From Caxton's Prologue to Malory's Morte d'Arthur.

For it is notoyrly knowen thorugh the unyversal world that there been IX worthy and the best that ever were, that is to wete, thre paynyms, thre jewes, and thre crysten men. As for the paynyms, they were tofore the incarnacyon of Cryst, whiche were named, the fyrst Hector of Troye, of whome thystorye is comen bothe in balade and prose; the second Alysaunder the grete; and the thyrd Julyus Cezar, emperour of Rome, of whome thystoryes ben wel kno and had.

A.D. 1500.

From Tyndale's New Testament.

When he was come downe from the mountayne, moch people folowed him. And lo! ther came a lepre and worsheped him, sayinge: Master if thou wylt thou canst make me clene. And Jesus put forthe hys hond and touched hym; saying: I wyll, be thou clene, and immediately his leprosie was clensed. And Jesus sayde vnto him: Se thou tell no man, but go and shewe hy selfe to the preste and offer the gyfte that Moses commaunded, in witness to them.

MODERN ENGLISH.

A.D. 1550.

From a Letter of the Duke of Northumberland.

Hon^{ble} Lord, and in this distress my especiall refuge, most wofull was the newes I receyved this evenynge by M^{r} Lieutenant that I must prepare myselfe against tomorrowe to receyve my deadly stroke. Alas, my good lord, is my cryme so heynous as noe redemcion but my blood can washe awaye the spottes thereof? An old proverb ther is, and that most true, that a lyving dogge is better than a dead lyon.

A.D. 1650.

From a Letter of Queen Henrietta Maria.

This day I received yours of the 21, to which, being streightened in tyme, I shall answer in English that it may be soonest put into cypher. In the first place you conclude right, that nothing but the abundance of my love could make me take upon me the harsher part of pressing things which are inacceptible to you.

A.D. 1750.

From a Letter of John Wesley.

Always take advice or reproof as a favour: it is the surest mark of love. I advised you once and you took it as an affront: nevertheless I will do it once more. Scream no more at the peril of your soul. God now warns you by me, whom He has set over you.

A.D. 1850.

From a Letter of Wm. M. Thackeray.

My dear Reed—Though I am rather slow in paying the tailor, I always pay him: and as with tailors so with men; I pay my debts to my friends, only at rather a long day. Thank you for writing to me so kindly, you have so much to do. I have only begun work ten days since, and now, in consequence, have little leisure.



English Grammar is the art of speaking, reading and writing the English language correctly.

It is divided into four parts: **Orthography, Etymology, Syntax** and **Prosody.**

Orthography treats of letters, syllables, separate words and spelling.

Etymology treats of the different parts of speech with their classes and modifications.

Syntax treats of the relation, agreement, government and arrangement of words in sentences.

Prosody treats of punctuation, utterance, figures and versification.

LETTERS.

A **Letter** is an alphabetic mark or character commonly representing some elementary sound of a word.

An **elementary sound** of a word is a simple or primary sound of the human voice used in speaking.

The sound of a letter is commonly called its **power:** when any letter of a word is not sounded it is said to be **silent** or **mute.**

The letters in the English language are twenty-six; the simple or primary sounds in the language are forty-one.

The **letters** are: A a; B b; C c; D d; E e; F f; G g; H h; I i; J j; K k; L l; M m; N n; O o; P p; Q q; R r; S s; T t; U u; V v; W w; X x; Y y; Z z.

The letters are divided into two general classes, **vowels** and **consonants.**

A **vowel** is a letter which forms a perfect sound when uttered alone; as, *a, e, o.*

A **consonant** is a letter which cannot be perfectly uttered till joined to a vowel; as, *b, c, d.*

The **vowels** are *a, e, i, o, u,* and sometimes *w* and *y.*

W or *y* is called a consonant when it precedes a vowel heard in the same syllable; as in *wine, twine, ye, yet.* In all other cases these letters are vowels; as, *newly, dewy, eye-brow.*

Consonants are divided into **semi-vowels** and **mutes.**

A **semi-vowel** is a consonant which can be imperfectly sounded without a vowel, so that at the end of a syllable its sound may be protracted; as, *l, n, z,* in *al, an, az.*

A **mute** is a consonant which cannot be sounded at all without a vowel, and which at the end of a syllable suddenly stops the breath; as, *k, p, t,* in *ak, ap, at.*

The **semi-vowels** are *f, h, j, l, m, n, r, s, v, w, x, y, z,* and *c* and *g* soft; but *w* or *y* at the end of a syllable is a vowel.

The **mutes** are eight: *b, d, k, p, q, t,* and *c* and *g* hard; three of these—*k, q,* and *c* hard—sound exactly alike.

The four semi-vowels, *l, m, n* and *r,* are also called **liquids,** because they readily unite with other consonants, flowing, as it were, into their sounds.

The following consonants are styled **dentals,** viz.: *d, j, s, t, z,* and *g* soft, being pronounced chiefly by the aid of the teeth.

D, g, j, k, l, n and *q* are called **palatals,** from the use made of the palate in pronouncing them.

B, p, f, v and *m* are called **labials,** being pronounced chiefly by the lips.

M, *n* and the digraph *ng* are called **nasals**, being sounded through the nose.

K, *q* and *c* and *g* hard are called **gutturals**, being sounded by the throat.

Peculiarities in Sounds of Consonants.

B preceded by *m* in the same syllable is generally silent; as, *lamb*, *limb*, *comb;* but *succumb* is an exception. It is silent before *t* in the same syllable; as in *debt*, *doubt*, etc.

The letter **c** is hard and sounds like *k* before *a*, *o* and *u;* it is soft and sounds like *s* before *e*, *i* and *y;* except in *sceptic*, *scirrhus*, and their derivatives, in which it is hard, like *k*. In the words *indict*, *indictable*, *indictment*, *czar* and *victuals*, *c* is silent. Where *c* comes after the accent and is followed by *ea*, *ia*, *io* or *eous*, it takes, like *s* or *t* under the same circumstances, the sound of *sh;* as, *ocean*, *social*, *tenacious*, *cetaceous*. In the words *discern*, *sacrifice* and *suffice*, *c* has the sound of *s*.

The regular sound of the digraph **ch** is the same as that of *tch* or *tsh;* as in *chair*, *child*, *rich*. In words from the French it has the sound of *sh;* as in *chagrin*, *chaise*. In words derived from the ancient languages *ch* is generally hard, like *k;* as, *chemistry*, *choler*, *echo*, *chorus*, *stomach*. Exceptions, *cherub*, *charity*, *chart*, *charter*. *Ch* is hard in all words where it is followed by *l* or *r;* as, *Christian*, *chlorosis*. When *arch*, signifying *chief*, begins a word from the Greek language, followed by a vowel, it is pronounced *ark;* as, *archangel*, *architect;* but when *arch* is prefixed to an English word it is pronounced so as to rhyme with *march;* as, *archbishop*, *archduke*. In *drachm*, *schism* and *yacht*, *ch* is silent.

D is silent in *Wednesday* and *handkerchief*.

G, like *c*, has two sounds, one hard and the other soft. It is hard before *a*, *o* and *u*. The only exception is *gaol*, which is commonly written as well as pronounced *jail*. *G* followed by *n* at the beginning of a word is silent; as, *gnarl*, *gnash*, *gnat*. It is also silent when followed by *n* at the end of a word; as, *arraign*, *design*, *impugn*. *G* before *e*, *i* and *y* is sometimes hard and sometimes soft. It is generally soft before words derived from the Greek, Latin and French, and hard before words from the Saxon.

Gh. At the beginning of a word the *h* is silent; as *ghost*, *ghastly*. At the end of words both letters are commonly silent; as, *sigh*, *nigh*, *weigh*. In some words it has the sound of *f;* as, *rough*, *laugh;* and in some the sound of *k;* as, *hough*, *lough*.

The combination of letters **ough** at the end of words has no less than seven different sounds, which are exhibited in the following lines:

'Tis not an easy task to show
How *o-u-g-h* sounds; since, *though*
An Irish *lough* and English *slough*
And *cough* and *hiccough*, all allow,
Differ as much as *tough and through*,
There seems no reason why they do.

Ght. In this termination the letters *gh* are always silent; as, *fight*, *right;* except in *draught*, which is pronounced, and in some of its senses usually written, *draft*.

The letter **h** is a note of aspiration, and it is silent at the beginning of a number of words; as, *heir*, *heiress*, *honor*, *honesty*, *honorable*, *honor*, *hour*, *hostler*, etc. In *hospital*, *humble*, *humor*, *herb*, etc., according to some authorities, it is silent; according to others it is sounded. It is always silent after *r;* as, *rheum*, *rhetoric*, *rhapsody*.

J has the same sound as soft *g*.

K has the same sound as *c* hard. It is always silent before *n;* as, *knee*, *know*. It is also silent after *c;* as, *barrack*, *back*.

L is silent in many words; as, *calf*, *half*, *talk*, *balm*, *calm*, *would*, *should*, etc.

M always preserves its sound except in *accompt*, *accomptant*, *comptroller*, pronounced and more commonly written *account*, *accountant*, *controller*. *M* is silent when it precedes *n;* as, *mnemonics*.

N is mute when it ends a syllable and is preceded by *l* or *m;* as in *kiln*, *hymn*, *limn*, *solemn*, *column*.

P is silent before *n*, *s* and *t* at the beginning of words; as, *psalm*, *psalter*, *ptisan*, *pneumonia*.

Ph has generally the sound of *f;* as, *physic*, *philosophy*. In *nephew* and in *Stephen* it has the sound of *v;* and in *diphthong*, *triphthong*, *naphtha*, the *h* is silent.

Q is always followed by *u*, and *qu* has commonly the sound of *kw;* as, *queen*, *quart;* but in many words, mostly from the French, it has the sound of *k;* as *coquette*, *etiquette*, *liquor*, *mosque*.

S final has the sound of *z* when it immediately follows any consonant except the mutes *k*, *p*, *t*, the semi-vowel *f* and *th* aspirated, as in *ribs*, *heads*, *hens;* also when it forms an additional syllable with *z* before it, in the plural of nouns and the third person singular of verbs, as *churches*, *boxes*, *teaches*; likewise in some verbs ending in *se* to distinguish them from nouns and adjectives of the same form, as *abuse*, *use*, *close*, *diffuse*, as distinguished from the nouns *abuse*, *use*, and the adjectives *close* and *diffuse*.

S takes the sound of *sh* in words ending in *sion* preceded by a consonant; as *diversion*, *passion*, *mission*; also in *censure*, *sure*, *sugar*, *fissure*, etc.

S has the sound of *zh* in the termination *sion* preceded by a vowel; as *evasion*, *decision*, *explosion;* also in a number of words in which *s* is preceded by an accented vowel and followed by the termination *ure*, as in *measure*, *pleasure*, *treasure*, *leisure;* also in several words ending in *sier*, as *crosier*, *osier*, *hosier;* also in *ambrosia*, *ambrosial*, *elysium*, *elysian*; also in the words *abscission*, *scission*, and *rescission*. **S** is silent in the words *aisle*, *isle*, *island*, *demesne*, *puisne*, *viscount*, and generally at the end of French words adopted into English, as *chamois*, *corps*, *vis-a-vis*, etc.

T, when it comes immediately after the accent and is followed by the vowels *ia*, *ie* or *io*, takes the sound in these cases of *sh;* as, *partial*, *patient*, *nation*, *militia*.

Th. The *h* is silent in the words *Thomas*, *thyme*, *phthisic*, *Thames*. The *th* is silent in *asthma* and *isthmus*.

W is always silent before *r;* as, *write*, *wren*, *wrist*. It is also silent in *answer*, *sword*, *toward* and *two*.

X at the beginning of words has the sound of *z*; as, *Xenophon*, *xylography*.

Z is silent in *rendezvous*.

Combinations of Vowels.

The **power** of a letter is its sound in a given word. Some letters stand for more than one sound; as *a* in *ale, are, awl.* Some sounds have more than one letter to stand for them; thus in *her, sir, fur,* the same sound is represented by *e, i* and *u.* Our twenty-six letters represent forty-one sounds.

A **Diphthong** is two vowels formed in one syllable; as *ea* in *beat, ou* in *sound.*

A **proper diphthong** is one in which both the vowels are sounded; as, *oi* in *voice.*

An **improper diphthong** is one in which only one of the vowels is sounded; as, *oa* in *loaf.*

A **Triphthong** is three vowels joined in one syllable; as, *eau* in *beau, iew* in *view.*

A **proper triphthong** is one in which all the vowels are sounded; as, *uoy* in *buoy.*

An **improper diphthong** is one in which only one or two of the vowels are sounded; as, *eau* in *beauty, iou* in *anxious.*

SYLLABLES.

A **Syllable** is one or more letters pronounced in one sound and is either a word or a part of a word; as, *a, an, ant.*

In every word there are as many syllables as there are distinct sounds; as, *gram-ma-ri-an.*

A word of one syllable is called a **monosyllable;** as, *home.* A word of two syllables, a **dissyllable;** as, *he-ro.* A word of three syllables, a **trisyllable;** as, *he-ro-ic.* And a word of four or more syllables, a **polysyllable;** as, *im-per-a-tive, dis-con-nect-ed-ly, sex-a-ge-na-ri-an.*

In dividing words into syllables we are to be directed chiefly by the ear; it may, however, be proper to observe, as far as practicable, the following rules:

Consonants should generally be joined to the vowels or diphthongs which they modify in utterance; as, *ap-os-tol-ic-al.*

Two vowels coming together, if they do not make a diphthong, must be parted in dividing the syllables; as, *a-e-ri-al.*

Derivative and grammatical terminations should generally be separated from the radical words to which they are added; as, *harm-less, great-ly, con-nect-ed.*

Prefixes in general form separate syllables; as, *mis-place, out-ride, up-lift;* but if their own primitive meaning be disregarded, the case may be otherwise; thus, *re-create* and *rec-reate* are words of different import.

Compounds, when divided, should be divided into the simple words which compose them; as, *no-where.*

At the end of a line a word may be divided if necessary; but a syllable must never be broken.

ACCENT.

Accent is stress of voice laid on a certain syllable when a word is uttered. The syllable that receives the stress is said to be *accented.* It may be denoted by a mark called the acute accent (′), placed above it to the right; as, *lem′on, engrav′.*

Accent is of two kinds: **primary,** as in *in-tend′*, where the full force of the voice is on the last syllable; and **secondary,** as in *su′per-in-tend′*, where the first syllable is distinguished by a stress greater than that laid on the second and third syllables, though less than that laid on the last. In some words there are two secondary or subordinate accents; as, *in-com′pre-hen′si-bil′i-ty.*

There are about eighty dissyllables in which the same word is used for a verb on the one hand and a noun or adjective on the other. To distinguish them we accent the *nouns* and the *adjectives* on the *first* syllable, and the *verbs* on the *last;* as, a *con′vert,* to *convert′;* a *con′tract,* to *contract′;* an *ob′ject,* to *object′;* an *o′verflow,* to *overflow′;* a *per′fume,* to *perfume′,* etc.

There are a few dissyllables which are at once nouns and adjectives. These are distinguished by accenting the nouns on the *first* syllable and the adjectives on the *last.*

NOUNS.	ADJECTIVES.
Au′gust, the month.	**August′,** noble.
Com′pact, an engagement.	**Compact′,** close.
Ex′ile, banishment.	**Exile′,** small, slender.
In′stinct, an impulse.	**Instinct′,** animated.
Min′ute, of time.	**Minute′,** very small.
Su′pine, in grammar.	**Supine′,** indolent.

The word *gallant* departs from the above rule. When it denotes a suitor or "attentive to ladies," it is accented *gallant′*, and is changed into *gal′lant* when it means high-spirited or daring.

Simple words of two syllables have only one syllable accented, except the word *amen,* which Walker says "is the only word in the language which has necessarily two consecutive accents."

WORDS.

A **Word** is one or more syllables spoken or written as the sign of some idea, or of some manner of thought.

Words are distinguished as **primitive** or **derivative,** and as **simple** or **compound.** The former division is called their **species;** the latter, their **figure.**

A **primitive** word is one that is not formed from any simpler word in the language; as, *harm, great.*

A **derivative** word is one that is formed from some simpler word in the language; as, *harmless, greatly, disconnect, unconnected.*

A **simple** word is one that is not compounded, not composed of other words; as, *watch, man, never, the, less.*

A **compound** word is one that is composed of two or more simple words; as, *watchman, nevertheless.*

Permanent compounds are consolidated; as, *bookseller, schoolmaster.* Others, which may be called temporary compounds, are formed by the hyphen; as, *glass-house, negro-merchant.*

Words regularly or analogically united, and commonly known as forming a compound, should never be needlessly broken apart.

When the simple words would only form a regular phrase of the same meaning, the compounding of any of them ought to be avoided.

Words otherwise liable to be misunderstood must be joined together or written separately as the sense and construction may happen to require.

When two or more compounds are connected in one sentence none of them should be split to make an ellipsis of half a word.

When the parts of a compound do not coalesce, as, *to-morrow, to-night, to-day,* or when each retains its original accent, so that the compound has more than one, or one that is movable, as, *first-born, hanger-on, laughter-loving,* the hyphen should be inserted between them.

When a compound has but one accented syllable in pronunciation, as, *watchword, statesman, gentleman,* and the parts are such as admit of a complete coalescence, no hyphen should be inserted between them.

WORD-BUILDING.

The primitive words of the English language are few compared with the derivatives. This is because many derivatives sometimes come from a single primitive. Thus from the primitive *part* are formed counter*part*, de*part*, im*part*, *party*, *part*-isan, *part*icle, im*part*ed, co*part*ner, etc.

A **Prefix** is a letter or letters placed before a primitive or compound to modify its meaning; as, *de* in *depart, un* in *ungentlemanly.*

A **Suffix** is a letter or letters placed after a primitive or compound to modify its meaning; as, *isan* in *partisan, ly* in *ungentlemanly.*

Some derivatives come from roots not separately used as words. Thus *avert, revert, convertible,* etc., come from the root *vert,* meaning to turn.

These roots are mostly from Latin words, and some of them enter into a great number of derivatives. The most important of these **inseparable roots** are:

cede, ceed, cess, to go.	**lude, lus,** to play.
ceive, cept, to take.	**mit, miss,** to send.
clude, clus, to shut.	**pel, puls,** to drive.
cur, curs, to run.	**pend, pens,** to hang.
dict, to say or speak.	**pone, pose,** to place.
duce, duct, to lead.	**port,** to carry.
fect, fici, to do, make.	**scribe, script,** to write.
fer, to bear, to carry.	**sist,** to stand.
fuse, to pour.	**tain, tent,** to hold.
ject, to cast.	**tend, tens,** to shield.
late, bear, carry.	**tract,** to draw.
lect, to choose, gather.	**vene, vent,** to come.

A derivative may be formed by uniting two or more prefixes or suffixes with a primitive or inseparable root; as, *re-ex*-port, to carry-*out-again;* just-*ify-ing, continuing-to-make*-just; *re-col*-lect-*ions, more-than-one-act-of*-gathering-*together-again.*

A derivative may be formed by uniting a prefix or suffix with a compound; as, good-humor-*ed.*

Compounds may be formed by uniting two primitives; as, *moon-beam;* a primitive and derivative, as, *bright-eyed;* two derivatives, as, *brightest-eyed;* an inseparable root and a primitive, as, *multiform;* two inseparable roots, as, *geography.*

The Prefixes.

In the formation of words, the particles which are employed as prefixes generally have some peculiar import, which may be separately explained. A few of them are of Anglo-Saxon origin, and the greater part of these are still employed as separate words in our language. The rest are Latin, Greek and French prepositions. The roots to which they are affixed are not always proper English words. Those which are such are called separable **radicals**, and those which are not such, **inseparable radicals.**

English or Anglo-Saxon Prefixes.

A, as an English prefix, signifies *on, in, at* or *to;* as in *a-broad, a-shore, a-sleep, a-far, a-field.* The French *à* (*to*) is probably the same particle; as in *a-dieu.* This prefix is sometimes redundant; as in *a-wake, a-rise.*

Be signifies *upon, to, by* or *for;* as in *be-spatter, be-times, be-tide, be-speak.* It is sometimes redundant; as in *be-gird, be-deck, be-loved.*

Counter means *against* or *opposite;* as in *counter-poise, counter-evidence, counter-natural.*

For, in composition, seems to signify *from.* It is found in the irregular verbs *for-bear, for-bid, for-get, for-give, for-sake, for-swear;* and in *for-do, for-pass, for-pine, for-say, for-think, for-waste,* which last are now seldom used.

Fore, prefixed to verbs, signifies *before;* as, *fore-know, fore-tell;* prefixed to nouns it is an adjective and signifies *anterior;* as, *fore-side, fore-part.*

Half, signifying *one of two equal parts,* is much used in composition, and often merely to denote imperfection; as, *half-sighted,* seeing imperfectly.

Mis signifies *wrong;* as, *mis-do, mis-place.*

Out, prefixed to verbs, generally denotes excess; as, *out-do, out-leap;* prefixed to nouns it is an adjective and signifies *exterior;* as, *out-side, out-parish.*

Over usually denotes superiority or excess; as, *over-power, over-strain, over-large, over-dose.*

Self signifies *one's own person* or *belonging to one's own person.* It is much used in composition; as, *self-love, self-willed, self-accusing.* Sometimes *self* means *very;* as, *self-same.*

Un denotes negation or contrariety; as, *un-kind, un-load.*

Under denotes inferiority; as, *under-value, under-clerk.*

Up denotes motion upwards; as, *up-lift;* sometimes subversion; as, *up-set.*

With, as a prefix (unlike the common preposition *with*), signifies *against, from* or *back;* as, *with-stand, with-hold, with-draw.*

Latin Prefixes.

Not many of the primitives to which these are prefixed are employed separately in English. The final letter of the prefix *ad, con, ex, in, ob* or *sub* is often changed before certain consonants.

A, ab, abs, means *from* or *away;* as, *a-vert,* to turn from; *ab-duce,* to lead from; *abs-tract,* to draw away.

Ad, ac, af, al, an, ap, as, at, mean *to* or *at;* as, *ad-vert,* to turn to; *ac-cede,* to yield to; *af-flux,* a flowing-to; *al-ly,* to bind to; *an-nex,* to link to; *ap-ply,* to put to; *as-sume,* to take to; *at-test,* to witness to.

Ante, *before;* as, *ante-cedent,* going before; *ante-mundane,* before the world; *ante-date,* to date before.

Circum, *around* or *about;* as, *circum-volve,* to roll around.

Con, com, co, col, cor, *together;* as, *con-tract,* to draw together; *com-pel,* to drive together; *co-erce,* to force together; *col-lect,* to gather together; *cor-rade,* to scrape together; *con-junction,* a joining-together.

Contra, *against;* as, *contra-dict,* to speak against.

De, *of, from* or *down;* as, *de-note,* to be a sign of; *de-tract,* to draw from; *de-pend,* to hang down; *de-press,* to press down.

Dis, di, *away* or *apart;* as, *dis-pel,* to drive away; *dis-sect,* to cut apart; *di-vert,* to turn away. *Dis,* before English words, generally reverses their meaning; as, *please, dis-please.*

E or **ex, ec, ef,** *out;* as, *e-ject,* to cast out; *ex-tract,* to draw out; *ec-stacy,* a raising-out; *ef-face,* to blot out.

Extra, *beyond;* as, *extra-vagant,* wandering beyond.

In, il, im, ir, *in, into, against* or *upon;* as, *in-spire,* to breathe in; *il-lude,* to draw in by deceit; *im-mure,* to wall in; *ir-ruption,* a breaking-in; *in-cur,* to run into; *in-dict,* to declare against; *im-pute,* to charge upon. These syllables prefixed to nouns or adjectives generally reverse their meaning; as, *ir-religion, ir-rational, in-secure, in-sane.*

Inter, *between;* as, *inter-sperse,* to scatter between; *inter-jection,* something thrown in between.

Intro, *within;* as, *intro-vert,* to turn within

Ob, oc, of, op, *against;* as, *ob-trude,* to thrust against; *oc-cur,* to run against; *of-fer,* to bring against; *op-pose,* to place against; *ob-ject,* to cast against.

Per, *through* or *by;* as, *per-vade,* to go through; *per-chance,* by chance; *per-cent,* by the hundred.

Post, *after;* as, *post-pone,* to place after.

Præ or **pre,** *before;* as, *pre-sume,* to take before; *pre-position,* a placing-before or something placed before.

Pro, *for, forth* or *forwards;* as, *pro-vide,* to take care for; *pro-duce,* to bring forth; *pro-trude,* to thrust forward.

Preter, *past* or *beyond;* as, *preter-it,* gone by; *preter-natural,* beyond what is natural.

Re, *again* or *back;* as, *re-view,* to view again; *re-pel,* to drive back.

Retro, *backwards;* as, *retro-cession,* a going backwards.

Se, *aside* or *apart;* as, *se-duce,* to lead aside; *se-cede,* to go apart.

Semi, *half;* as, *semi-colon,* half a colon; *semi-circle,* half a circle; *semi-vowel,* half a vowel.

Sub, sup, sur, *under, beneath;* as, *sub-terranean,* beneath the earth; *sub-scribe,* to write under; *sup-ply,* to put under; *sur-reption,* a creeping-under; *sub-ject,* cast under.

Subter, *beneath;* as, *subter-fluous,* flowing beneath.

Super, *over* or *above;* as, *super-fluous,* flowing over; *super-lative,* carried over.

Trans, *beyond, over, to another state or place;* as, *trans-gress,* to pass beyond or over; *trans-mit,* to send to another place; *trans-form,* to change to another shape.

Greek Prefixes.

A, an, denote *privation;* as, *a-nomalous,* wanting rule; *an-onymous,* wanting name; *an-archy,* want of government.

Amphi, *both* or *two;* as, *amphi-bious,* living in two elements.

Anti, *against;* as, *anti-acid,* against acidity; *anti-febrile,* against fever; *anti-thesis,* a placing-against.

Apo, aph, *from;* as, *apo-strophe,* a turning-from; *aph-æresis,* a taking-from.

Dia, *through;* as, *dia-gonal,* through the corners; *dia-meter,* the measure through.

Epi, eph, *upon;* as, *epi-demic,* upon the people; *eph-emera,* upon a day.

Hemi, *half;* as, *hemi-sphere,* half a sphere.

Hyper, *over;* as, *hyper-critical,* over-critical.

Hypo, *under;* as, *hypo-stasis,* substance or that which stands under; *hypo-thesis,* supposition or a placing-under.

Meta, *beyond, over, to another state or place;* as, *meta-morphose,* to change to another shape; *meta-physics,* beyond physics.

Para, *against; para-dox,* something contrary to common opinion.

Peri, *around;* as, *peri-phery,* the circumference or measure around.

Syn, sym, syl, *together;* as, *syn-tax,* a placing-together; *sym-pathy,* a suffering-together; *syl-lable,* what is taken together.

French Prefixes.

A is a preposition of very frequent use in French and generally means *to.* We have suggested that it is probably the same as the Anglo-Saxon prefix *a.* It is found in a few English compounds that are of French and not of Saxon origin; as, *a-dieu,* to God; *a-bout,* to the end or turn.

De, *of* or *from;* as in *de-mure,* of manners; *de-liver,* to ease from or of.

Demi, *half;* as, *demi-man,* half-man; *demi-god,* half-god.

En, em, *in, into* or *upon;* as, *en-chain,* to hold in chains; *em-brace,* to clasp in the arms; *en-tomb,* to put into a tomb; *em-boss,* to stud upon. Many words have wavered between the French and the Latin orthography of this prefix; as, *embody* or *imbody, ensurance* or *insurance, ensnare* or *insnare, enquire* or *inquire.*

Sur, *upon, over* or *after;* as, *sur-name,* a name upon a name; *sur-vey,* to look over; *sur-vive,* to live after, to overlive.

Suffixes.

Able, ible, ble, denote *that may or can be, worthy to be, worthy of;* as, attain*able,* that may be attained; blam*able,* that may be blamed, worthy of blame; laud*able,* worthy of praise.

Ac denotes *of, pertaining to;* as, cardi*ac,* pertaining to the heart; elegi*ac,* pertaining to elegy.

Aceous denotes *resembling or having the nature of, consisting of;* as, aren*aceous,* consisting of sand; folia*ceous,* resembling leaves, consisting of leaves, leafy.

Acious denotes *very* or *greatly, accustomed to* or *greatly addicted to, strongly;* as, aud*acious,* daring much, very daring; cap*acious,* taking or containing much; ten*acious,* holding strongly or firmly.

Acy denotes *—ness, state of being, quality or attribute of office;* as, accur*acy,* the quality of being accurate, accurateness; cur*acy,* the office of a curate; celib*acy,* the state of being unmarried.

Age denotes *act of, —ing, state or condition of being, allowance for;* as, marri*age*, the act of marrying, the state of being married; bond*age*, the state of being in bonds; foli*age*, a collection of leaves; peer*age*, the condition or rank of a peer, the peers taken collectively; wharf*age*, allowance for use of the wharf.

Al denotes *of, pertaining to, befitting, done* or *made by;* as, celesti*al*, of or pertaining to heaven; manu*al*, of the hand, done by hand; matern*al*, of a mother, befitting a mother.

An, ean, ian, in nouns, denote *one who, one who belongs to, native, inhabitant of;* as, artis*an*, one who practices some art; Christ*ian*, one who belongs to Christ; Europ*ean*, a native or inhabitant of Europe.

Ance, ancy, ency, denote *the act of, —ing, state of being, quality or attribute of;* as, accept*ance*, the act of taking to or of receiving; assist*ance*, a standing by, aid; const*ancy*, a standing together, the state or quality of being constant; inno*cence*, the state or quality of being harmless.

Ant, ent, in adjectives, denote *—ing;* as, milit*ant*, fighting; pend*ent*, hanging.

Ar denotes *in the form of, like, of, pertaining to, having;* as, angul*ar*, having angles, in the form of an angle; annul*ar*, in the form of a ring.

Ar denotes also *one who;* as, li*ar*, one who lies.

Ard denotes *one who has an habitual fault;* as, drunk*ard*, one who gets drunk habitually; slugg*ard*, one who is habitually sluggish.

Arious denotes *pertaining to;* as, greg*arious*, pertaining to flocks.

Ary in nouns denotes *one who, the thing that* or *that which;* as, advers*ary*, one who is against or opposed to; bound*ary*, that which bounds; vag*ary*, a thing or thought that wanders, a whim.

Ary in adjectives denotes *of* or *pertaining to, by;* as, epistol*ary*, pertaining to letters, by letters.

Ate denotes *office;* as, consul*ate*, the office of consul; also, *one who;* as, leg*ate*, one who is sent as ambassador.

Ate in adjectives denotes *having, —ed* or *—d;* as, fortun*ate*, having fortune; illiter*ate*, unlettered.

Ate in verbs denotes *to make, to give, to put, to take;* as, antiqu*ate*, to make ancient; depopul*ate*, to take the people from; incarcer*ate*, to put into prison.

Atic denotes *one who;* as, lun*atic*, one who is afflicted with lunacy.

Cle, cule, ule, denote *little, minute;* as, animal*cule*, a minute animal; glob*ule*, a little globe.

Dom denotes *the place in which dominion or jurisdiction is exercised, rank, quality* or *state;* as duke*dom*, the place or territory in which a duke exercises jurisdiction, the rank or quality of a duke; wis*dom*, the quality or attitude of being wise.

Ee denotes *one to whom* something is done or given, *one who;* as, absent*ee*, one who is absent; trust*ee*, one to whom a trust is given.

Eer, ier, denotes *one who manages or has charge of, one who engages in or passes his time in;* as, charioteer, one who manages or drives a chariot; mountain*eer*, one who passes his time or lives in the mountains; mutin*eer*, one who engages in mutiny.

En, n, in adjectives derived from nouns, denote *made of, like;* as, braz*en*, made of brass, like brass.

En in verbs mostly derived from adjectives denotes *to make;* as, dark*en*, to make dark.

Eous denotes *consisting of, like, pertaining to, —y;* as, igne*ous*, pertaining to fire, consisting of fire, like fire, fiery.

Er denotes *one who;* as, build*er*, one who builds.

Escence denotes *state of growing or becoming, period of growing or becoming;* as, convale*scence*, the state or period of growing entirely strong.

Escent denotes *growing* or *becoming, somewhat;* as, rub*escent*, growing red, somewhat red.

Etic denotes *having;* as, path*etic*, having feeling.

Ey denotes *consisting of;* as, clay*ey*, consisting of clay.

Fic denotes *making* or *causing;* as, horri*fic*, causing horror.

Ful denotes *full of;* as, hope*ful*, full of hope.

Fy denotes *to make;* as, forti*fy*, to make strong.

Hood, head, denote *state of being, the nature or distinguishing attitudes of being;* as, child*hood*, state of being a child; God*head*, the *attitude* or nature of God, divinity.

Iac denotes *one who;* as, man*iac*, one who is mad.

Ic denotes *thing, art, science;* as, fabr*ic*, the thing made, log*ic*, the science of words.

Ic denotes also *one who;* as, crit*ic*, one who judges.

Ic, ical, denote *of, pertaining to, like;* as, angel*ic*, or angel*ical*, of or pertaining to an angel, like an angel; hero*ic*, or hero*ical*, like a hero.

Ice denotes *quality or attitude of being;* as, avar*ice*, the quality of being avaricious; just*ice*, the quality of being just.

Ician denotes *one versed or skilled in;* as, arithmet*ician*, one versed in arithmetic; mus*ician*, one versed or skilled in music.

Icle denotes *little;* as, part*icle*, a little part.

Ics denotes *the science or art of;* as, tact*ics*, the science or art of military arrangement; econom*ics*, the science of household affairs.

Id denotes *—ing;* as, serv*id*, burning, glowing.

Ile denotes *of, pertaining to, like, that may or can be easily;* as, doc*ile*, that may be easily taught; juven*ile*, of or pertaining to youth.

Ine denotes *one who;* as, mar*ine*, one who serves at sea; also, *of* or *pertaining to, like;* as, can*ine*, pertaining to dogs, like dogs; crystall*ine*, of crystal, like crystal; div*ine*, pertaining to God, like a god.

Ion denotes *the act of, state of being;* as, probat*ion*, a trying or proving; salvat*ion*, the act of saving, the state of being safe or saved.

Is denotes *act of, state of;* as, synthes*is*, act of putting together; cris*is*, state or point of judging.

Ish in adjectives denotes *somewhat, of* or *belonging to, like;* as black*ish*, somewhat black; Span*ish*, of or belonging to Spain; child*ish*, like a child.

Ish in verbs denotes *to make;* as, fin*ish*, to make an end of.

Ism denotes *state or quality of being, an idiom, doctrine or doctrines of;* as, barbar*ism*, the state of being barbarous; Gallic*ism*, a French idiom; Calvin*ism*, the doctrines of Calvin.

Ist denotes *one who,* generally one who is engaged in some pursuit or study; as, art*ist*, one who practices an art.

Ite denotes *a descendant of, a follower of, a sectarian or party leader;* as, Amalek*ite*, a descendant of Amalek; Huss*ite*, a follower of John Huss.

Ite also denotes *having;* as, defin*ite*, having bounds; oppos*ite*, having opposition.

Ity, ty, denote *state or quality of being;* as, am*ity*, the state of being friends, friendliness, friendship; antiqu*ity*, ancientness, ancient times.

Ive in nouns denotes *one who, that which;* as, capt*ive*, one who is taken; mot*ive*, that which moves or actuates.

Ive in adjectives denotes *having the power, disposed* or *having the disposition;* as, adhes*ive*, having the power of sticking to, having a tendency to adhere.

Ize, or **ise,** denotes *to make, to give, to act or do like;* as, fertil*ize*, to make fertile; author*ise*, to give authority; critic*ise*, to act the judge or critic.

Kin denotes *little;* as, lamb*kin*, a little lamb.

Less denotes *free from, without;* as, care*less*, free from care, without care.

Let, et, denote *little, young;* as, cygn*et*, a young swan; eye*let* (literally, a little eye), the hole or eye of a needle; mall*et*, a little mall.

Like denotes *resembling;* as, child*like*, resembling a child; God*like*, like or resembling God.

Ling denotes *little, young;* as, found*ling*, a little child found without parent or owner; gos*ling*, a little or very young goose.

Ly in adjectives denotes *like;* as, beast*ly*, like a beast.

Ly in adverbs denotes *in a manner or way;* as, joyful*ly*, in a joyful manner.

Ment denotes *the act of, state of being, that which;* as, accomplish*ment*, the act of accomplishing, the state of being accomplished; pay*ment*, the act of paying, that which is paid.

Mony denotes *state of being, quality of being, that which;* as, acri*mony*, the quality of being sharp or acrid; matri*mony*, the state of being a mother or wife, marriage; patri*mony*, that which is inherited from a father.

Oid, or **oidal,** denotes *having the form or appearance of, resembling;* as, ov*oid*, or ov*oidal*, having the form of an egg; variol*oid*, a disease resembling small-pox.

Ness denotes *state of being, quality or attribute of being;* as, bald*ness*, the state of being bald; bold*ness*, the quality or attribute of being bold.

Or denotes *one who;* also, *the act of, sensation or emotion, that which causes or brings sensation;* as, audit*or*, one who hears, a hearer; col*or*, a peculiar sensation in the eye, that which causes the sensation of color; fav*or*, the act of favoring, that which causes or brings favor; splend*or*, brightness.

Ory in nouns denotes *the place or thing where;* as, armo*ry*, the place where arms are kept.

Ory in adjectives denotes *giving, making or causing, pertaining to;* as, adulat*ory*, giving flattery, flattering; amat*ory*, pertaining to love or lovers, causing love.

Ose denotes *full of;* as, joc*ose*, full of jokes.

Ous denotes *full of, consisting of;* as, cartilagin*ous*, consisting of cartilage, like cartilage; timor*ous*, fearful, fearing.

Ry denotes *state or quality of being, the art or practice of, the place where,* things of a certain kind or class *taken collectively;* as, gallantr*y*, the quality or attribute of being gallant, gallantness, nobleness, bravery; slaver*y*, the state of a slave; brewer*y*, the place where beer is brewed; cutler*y*, knives and other cutting instruments taken collectively; also, the art or business of a cutler.

Ship denotes *office of, state or relation of;* as, clerk*ship*, the office of clerk; friend*ship*, the state or relation of a friend.

Some denotes *full of, making or causing;* as, blithe*some*, full of gayety, causing gayety or blitheness; weari*some*, making weary.

Ster denotes *one that;* as, song*ster*, one that sings songs.

T denotes *a thing done;* as, gi*ft*, a thing given; dra*ft*, a drawing; join*t*, a joining.

Th denotes *the act of, state of being, that which;* as, bread*th*, broadness; grow*th*, growing or the act of growing, that which is growing, increase; weal*th*, the state of being well off or rich, that which makes rich.

Tude, or **ude,** denotes *—ness;* as, alti*tude*, highness, height; solicit*ude*, anxiousness, anxiety.

Ulent, olent or **lent** denotes *full of;* as, fraud*ulent*, full of fraud, deceitful, dishonest; pesti*lent*, full of plague or pestilence, corrupt, troublesome; vi*olent*, full of force or violence.

Ure denotes *the act of, state of being, that which;* as, creat*ure*, that which is created; curvat*ure*, a bending; rapt*ure*, the state of being carried away (with joy); seiz*ure*, the act of seizing.

Ward denotes *towards;* as, home*ward*, towards home.

Y in nouns denotes *the state or quality of being;* as, anarch*y*, the state of being without government; lithograph*y*, engraving on stone.

Y in adjectives formed by adding this suffix to nouns denotes *full of, consisting of, like;* as, rock*y*, full of rocks, like a rock; sand*y*, full of sand, consisting of sand, like sand.

SPELLING.

Spelling is the art of expressing words by their proper letters.

Before the invention of the art of printing little attention was paid to the mode of spelling words either in Anglo-Saxon or the English language, and, the orthography of most of the words being wholly unsettled, every writer, having no guide but his own ear, was at liberty to follow his own fancy or judgment. In the writings of the Anglo-Saxons and the early English authors almost all the words are spelled in more than one way, and for a long time subsequent to the invention of the art of printing the spelling of the English language remained in a very un-

settled state. As an illustration of this unsettled state, nearly a century after this invention, it may be mentioned that in the translation of the New Testament by Tindale, who was distinguished for talents and learning, the pronoun *it* is spelled in no less than eight different ways, as follows: *it, itt, yt, ytt, hit, hitt, hyt, hytt;* and in some cases four or five different modes are to be found in the same chapter.

The spelling of the language has been undergoing continual changes from the time of its first formation to the present day, although for a century or upwards it may be regarded as having assumed a comparatively settled form.

The dictionary of Samuel Johnson, first published in 1755, has contributed more than any work written before or since to introduce something like consistency into English orthography, and succeeding lexicographers have followed in his footsteps.

Rules for Spelling.

Monosyllables ending in *f, l* or *s*, preceded by a single vowel, double the final consonant; as, *staff, mill, pass;* except three in *f*, viz.: *clef, if, of;* four in *l: bul, nul, sal, sol;* and eleven in *s: as, gas, has, was, yes, is, his, this, us, thus, pus.*

Words ending in any other consonant than *f, l* or *s* do not double the final letter; except *abb, ebb, add, odd, egg, inn, err, burr, purr, yarr, butt, buzz, fuzz,* and some proper names.

Monosyllables and words accented on the last syllable, when they end with a single consonant preceded by a single vowel, or by a vowel after *qu*, double their final consonant before an additional syllable that begins with a vowel; as, *rob, robber; permit, permitting; acquit, acquittal, acquitting. X*, being equivalent to *ks*, is never doubled.

A final consonant, when it is not preceded by a single vowel, or when the accent is not on the last syllable, should remain single before an additional syllable; as, *toil, toiling; visit, visited; general, generalize.*

Words ending with any double letter preserve it double before any additional termination not beginning with the same letter; as in the following derivatives: *seeing, blissful, oddly, hilly, stiffness, agreeable.* The irregular words *fled, sold, told, dwelt, spelt, spilt, shalt, wilt, blest, past,* and the derivatives from the word *pontiff*, are exceptions to this rule.

The final *e mute* of a primitive word is generally omitted before an additional termination beginning with a vowel; as, *rate, ratable; force, forcible; rave, raving; eye, eying.* Words ending in *ce* or *ge* retain the *e* before *able* or *ous*, to preserve the soft sound of *c* and *g*; as, *peace, peaceable; change, changeable; outrage, outrageous.*

The final *e* of a primitive word is generally retained before an additional termination beginning with a consonant; as, *pale, paleness.* When the *e* is preceded by a vowel it is sometimes omitted; as, *true, truly; awe, awful;* and sometimes retained; as, *rue, rueful; shoe, shoeless.*

The final *y* of a primitive word, when preceded by a consonant, is changed into *i* before an additional termination; as, *merry, merrier, merriest, merrily, merriment; pity, pitied, pities, pitiful.* Before *ing, y* is retained to prevent the doubling of *i*; as, *pity, pitying.* Words ending in *ie* drop the *e* and change the *i* into *y* for the same reason; as, *die, dying.* When a vowel precedes, *y* should not be changed; as, *day, days, money, moneys.*

Compounds generally retain the orthography of the simple words which compose them; as, *hereof, horseman, uphill.* In permanent compounds the words *full* and *all* drop one *l*; as, *handful, careful, always, withal;* in others they retain both; as, *full-eyed, all-wise.*

I before *e*, except after *c*, is a rule worth remembering in such words as *believe, conceive, deceive.*

In derivatives formed from words ending in *c* by adding a termination beginning with *e, i* or *y*, the letter *k* is inserted after the *c*; as, *zinc, zincky; colic, colicky; traffic, trafficky.*

Verbs of one syllable ending with a single consonant preceded by a single vowel (as, *plan*), and verbs of two or more syllables ending in the same manner and having the accent on the last syllable (as, *regret*), double the final consonant of the verb on assuming an additional syllable; as, *plan, planned; regret, regretted.* But if a dipthong precedes the last consonant, or the last syllable is not accented, then the consonant is not doubled; as *join, joined; suffer, suffered.*

REFORMED SPELLING.

Many efforts have been made to secure a reform in the mode of spelling, and many philological associations have earnestly advocated a system of phonetic orthography, or spelling by sound. The English language contains over 100,000 words, although in ordinary conversation only from 3,000 to 5,000 are used. Few writers or speakers use more than 15,000. Shakspere is said to have only used 24,000, Milton 17,000, and in the Bible, exclusive of the proper names, there are said to be only 7,000 words. The mixed origin of the English language, with its constant modifications, will in some degree account for the striking anomalies which appear in our spelling. Signs representing sounds were multiplied especially by the introduction of the printer's art, and thus letters or combinations of letters for a single sound occur frequently. Many plans have been devised at dif-

ferent times, especially in late years, for reducing the spelling of words to absolute uniformity and the greatest simplicity by a complete reform in the method of representing the sounds of words by written characters, that is, by employing a new alphabet in which each sign stands for one, and only one, definite sound, and each sound is represented by one and only one character. The American Philological Association took up the matter in 1875, and in the succeeding year an international convention was held and a Spelling Reform Association organized. Meetings were held by several educational societies both in England and this country, urging on the work of reform, but after all there has really been very little practical result. The Spelling Reform Association adopted a phonetic alphabet on the principles enumerated above. The association advocated the dropping of silent letters on the score of economy, etc., and formulated the following five rules:

1. Use *e* for *ea* when equivalent to short *e*.
2. Omit silent *e* after a diphthong or a short vowel, unless preceded by *o* or *g*.
3. Use *f* for *ph*.
4. Omit one letter of a double consonant, unless both are pronounced.
5. Use *t* instead of *ed* when it represents the sound.

Some of the newspapers then began advocating reform in spelling, and in 1879 the Chicago *Tribune* appeared in improved orthography, and was followed by the *Home Journal* of New York and other papers. The rules adopted by these journals for their amended spelling were as follows:

1. Drop *ue* at the end of words like *dialogue, catalogue,* etc., where the preceding vowel is short. Thus spell *demagog, pedagog, epilog,* etc. Change *tongue* for *tung*. When the preceding vowel is long, as in *prorogue, vogue, rogue,* retain final letters as at present.

2. Drop final *e* in such words as *definite, indefinite, favorite,* where the preceding vowel is short. Thus spell *opposit, hypocrit, preterit.* When the preceding vowel is long, as in *polite, finite, unite, write,* etc., retain present form unchanged.

3. Drop final *te* in words like *quartette, coquette, cigarette.* Thus spell *roset, epaulet, gaset, vedet.*

4. Drop the final *me* in words like *programme.* Thus spell *program, oriflam, gram,* etc.

5. Change *ph* for *f* in works like *phantom, telegraph, phase,* Thus spell *alfabet, paragraf, filosofy, fonetic, fotograf,* etc.

P.S. No change in proper names.

The newspapers, however, have not continued to follow these rules, and in most cases have lapsed into the accustomed form of spelling, and the present outlook is not very flattering for the universal introduction of phonetic or reformed spelling.

FORMS OF LETTERS.

Different sorts of types or styles of letters are employed in the English language. Generally the Roman characters are used; sometimes the Italic, and occasionally the Old English. In writing we use the Script.

Roman. *Italic.* Old English. *Script.*

The letters have severally *two forms,* by which they are distinguished, as *capitals* and *small letters.*

Small letters constitute the body of every work; capitals are used for the sake of eminence and distinction.

The improper use of capitals or their omission is a common fault in composition, and should be guarded against. Sometimes more capitals are used than are necessary. The great number of words begin nearly all with small letters. When capitals are to be used is explained in the following rules.

The Use of Capital Letters.

Begin with a capital:

1. Every sentence and every line of poetry.

Examples.—Forget others' faults. How bright the day! What is fame? Custom forms us all.

"Time is the warp of life; oh! tell
The young, the fair, to weave it well."

2. All proper nouns, and titles of office, honor and respect.

Examples.—Henry the Fowler, Emperor of Germany; Robert Roe, Esquire; His Honor the Mayor; Elizabeth Barrett Browning; the Red River; Union Square; the Superior Court of the City of New York.

3. All adjectives formed from proper names.

Examples.—African, Italian, Welsh, Ciceronian.

Also adjectives denoting a sect or religion.

Examples.—Methodist, Puritan, Catholic.

4. Common nouns, where personified in a direct and lively manner; not where sex is merely attributed to an inanimate object.

Examples.—Then *War* waves his ensanguined sword, and fair *Peace* flees sighing to some happier land. But, the *sun* pursues his fiery course; the *moon* sheds her silvery beams.

5. All appellations of the Deity. The personal pronouns *Thou* and *He* standing for His name are sometimes capitalized.

Examples.—The Almighty; the King of kings; the Eternal Essence; Jehovah; the Supreme Being; our Father.

In the standard editions of the Bible, the pronouns, when referring to God, are never capitalized, not even in forms of direct address to the Deity.

6. The first word of a complete quoted sentence not introduced by *that, if* or any other conjunction.

Examples.—Thomson says, "Success makes villains honest." But, Thomson says that success makes villains honest.

7. Every noun, adjective and verb in the title of books and headings of chapters.

Examples.—Butler's "Treatise on the History of Ancient Philosophy;" Cousins' "Lectures on the True, the Beautiful and the Good."

8. Words that denote the leading subjects of chapters, articles or paragraphs.

A word defined, for instance, may commence with a capital. Do not introduce capitals too freely under this rule. When in doubt use a small letter.

9. The pronoun *I* and the interjection *O*.

10. Words denoting great events, eras of history, noted written instruments, extraordinary physical phenomena and the like.

Examples.—The Creation; the Confusion of Languages; the Restoration; the Dark Ages; the Declaration of Independence; the Aurora Borealis.

11. Letters standing for words are generally written as capitals.

Example.—A.D. for *Anno Domini*, the year of our Lord.

12. The months of the year, and the days of the week. The names of the seasons, however, should not generally be capitalized, although it is customary with some authors.

13. The words *North*, *South*, *East* and *West*, and their compounds, as *Northwest*, when they signify a section of country. Also adjectives derived therefrom. This class of words should not be capitalized, however, when merely denoting direction.

PUNCTUATION.

Punctuation is the art of dividing composition by points or stops for the purpose of showing more clearly the sense and relation of the words, and of noting the different pauses and inflections required in reading.

Although a knowledge of Punctuation is necessary to the clear expression of thought in writing, there are comparatively few who have mastered it, even among educated people. That it is important may be illustrated by the following sentence:

The company consisted of Mr. Jones a lawyer his brother a soldier Mr. Black a New Yorker his sister and a boy.

Without punctuation it is impossible to say how many were in the company, or what their relationship was. If commas are inserted it will appear that the company comprised eight people:

The company consisted of Mr. Jones, a lawyer, his brother, a soldier, Mr. Black, a New Yorker, his sister and a boy.

By inserting semicolons in the place of some of the commas the number of the company is reduced to five, as follows:

The company consisted of Mr. Jones, a lawyer; his brother, a soldier; Mr. Black, a New Yorker; his sister and a boy.

By otherwise punctuating it various changes would be made. As an illustration of the ludicrous errors which might occur from incorrect punctuation the following will serve:

Woman, without her man, would be a savage.

The proper sense and punctuation is:

Woman—without her, man would be a savage.

Such instances could be multiplied indefinitely.

Usage, which is really the foundation for all rules of punctuation as well as of grammar, authorizes the three following methods of punctuating the same sentence. In the present work the method indicated in the first sentence has been followed:

Rank, fame and honor are often undeserved.
Rank, fame, and honor are often undeserved.
Rank, fame, and honor, are often undeserved.

Punctuation Points.

The Punctuation Points are as follows:

Period	.	Paragraph	¶
Colon	:	Brace	{
Semicolon	;		}
Comma	,	Acute Accent	´
Interrogation Point	?	Grave Accent	`
Exclamation Point	!	Circumflex Accent	^
Dash	—	Tilde, or Circumflex	~
Parentheses	( )	The Long, or Macron	¯
Brackets	[ ]	The Short, or Breve	˘
Hyphen	-	Diæresis	¨
Quotation Marks	" "	Cedilla	ç
Apostrophe	'	Asterisk	*
Ellipsis	. . . .	Dagger, or Obelisk	†
	* * * *	Double Dagger	‡
Caret	∧	Section	§
Index	☞	Parallel	‖

Rules for Punctuation.

The Period must be placed after every declarative and imperative sentence and every abbreviated word.

Examples.—Obey your parents. Virtue is the only nobility. We write Jas. for James, N. Y. for New York, No. for number, George I. for George the First.

A period after an abbreviation does not take the place of other points. Punctuate just as if the word were not abbreviated. But at the end of a sentence closing with an abbreviation only one period must be used.

Example.—"Go to the P. O., I tell you, and ask for a letter for H. Rob, Jr., M. D."

A nickname which is not really an abbreviation is not followed by a period.

Examples.—Dave Bidwell; Sam Slick.

The Interrogation Point must be placed after every interrogative sentence, member and clause; also after the interjections *eh* and *hey* implying a question.

Example.—Has the air weight? Air has weight; do you not believe it? You thought it would rain, eh?

The Exclamation Point should be placed after every exclamatory sentence, member, clause and expression.

Examples.—How disgusting is vice! Life is short; how careful we should be to use it aright! For shame!

An exclamation point must also be placed after every inter-

jection except *O, eh* and *hey*, unless very closely connected with other words.

Example.—Ah! who could have foreseen it? Pshaw! you are trifling.

The Colon must be placed between the great divisions of sentences, when minor divisions occur that are separated by semicolons.

Example.—Man has effected wonders; he is every day advancing in knowledge and power: yet, surpassed by nature in even her humblest efforts, he can not so much as make a blade of grass.

A colon must also be placed before a formal enumeration of particulars, or a direct quotation, referred to by the words *thus, following, as follows, this, these*, etc.

Example.—There is much justice in this warning of Lavater: "Beware of him who hates the laugh of a child."

A *formal* enumeration is one in which the words *first, secondly*, etc., or similar terms, are introduced. These words are set off with the comma, the particulars are separated by the semicolon, and before the whole enumeration a colon must be placed.

Example.—There were four great empires in ancient times: first, the Assyrian; second, the Persian; third, the Macedonian; fourth, the Roman.

The Semicolon must be placed between the members of compound sentences, unless the connection is exceedingly close.

Example.—The wheel of fortune is ever turning; who can say, "I shall be uppermost to-morrow"?

If the members are very short and the connection is close, the comma may be used instead of the semicolon.

Example.—Man proposes, but God disposes.

A semicolon must be placed between the great divisions of sentences, when minor divisions occur that are separated by commas.

Examples.—Plato called beauty a privilege of nature; Theocritus, a delightful prejudice.

A semicolon should be placed before *as* when it introduces an example.

Example.—An adjective is a word which qualifies a noun; as, a *white* hat.

The Comma. Adjuncts and clauses, not essential to the meaning of a sentence or modifying the whole proposition, are set off with a comma on each side when introduced between a subject and its verb, or other parts that are closely connected. At the commencement or end of a sentence, such adjuncts and clauses are set off with a comma after or before them, as the case may be.

Example. —The bones of birds, in a word, combine strength with lightness in a remarkable degree. Blankets, which derived their name from Thomas Blanquet, were introduced into England in 1340. By the way, gunpowder was first known to the Chinese. No man can be an atheist, if he will only examine his own structure.

Subjects introduced by *as well as, and not*, etc., fall under this rule.

Example.—Toledo, as well as Damascus, was noted for its sword blades.

Single words relating to a whole proposition, and all vocative expressions, are also set off with the comma.

Examples.—Galileo, accordingly, was imprisoned. Smile, O Fortune, smile on our attempt.

No comma must be placed between restrictive adjuncts or clauses and that which they restrict.

Examples.—All must pay the debt *of nature.* All *that glitters* is not gold. The man *who plants the field* should reap the harvest.

A noun in apposition, modified by an adjunct or adjective, is generally, with its modifiers, set off by the comma.

Example.—Cleopatra, Queen of Egypt, was defeated by Octavius.

A comma should be placed between short members of compound sentences, connected by *and, but, or, nor, because, whereas* and other conjunctions.

Example.—Beauty dazzles, but amiability charms.

A comma must also be placed before a conjunction connecting the parts of a compound predicate, unless they are very short and so closely connected that no point is admissible.

Example.—The sun shines on all, even the wicked and ungrateful.

A comma must be placed before *or* introducing an equivalent, or a clause defining the writer's meaning.

Example.—Spelter, or zinc, comes chiefly from Germany.

A comma is required by some authorities on the subject of Punctuation before *and, or* and *nor* preceding the last of a series of clauses, or words that are the same part of speech and in the same construction.

Example.—Sunshine, cloud, and storm, all are sent for some wise purpose.

When, to avoid repetition, *and, or, nor*, or a verb previously used, is omitted, a comma takes its place.

Examples.—Tin is found in England, Bohemia, Saxony, Malacca and Banca. [Instead of saying England *and* Bohemia *and* Saxony *and* Malacca, to avoid repetition we omit *and*, and a comma takes its place.] Methusaleh was the oldest man; Samson, the strongest. [*Was* is omitted after *Samson*, and a comma takes its place.]

Words used in pairs take a comma after each pair.

Example.—Joy and sorrow, cloud and sunshine, are alike sent for our benefit.

Words repeated for the sake of their emphasis must be set off with their adjuncts, if they have any, by the comma.

Example.—Truth, truth, and nothing but the truth, will satisfy the candid enquirer.

A good general rule for the use of commas, as, in fact of other marks for punctuation, is: Use them when the meaning is thereby made clearer.

The Dash is used to denote:

1. A break in the construction.

Example.—Glory—what is it?

2. A transition in the sentiment from grave to humorous.

Example.—London is noted for its magnificent buildings, its extensive shipping, and—its dexterous pick-pockets.

3. A sudden interruption.

Example.—"You know my feelings; you know—" "Hold!" interrupted my friend.

4. Hesitation.

Example.—Such a man is a—a—I know not what to call him.

5. An abrupt or exclamatory repetition.

Example.—Such was the testimony of Solomon—Solomon who had all the pleasures of the world at his command.

A dash is sometimes used to denote the omission of letters, figures or words.

Example.—In the year 18—, I stopped over night at the village of G——.

A dash after other points makes them indicate a greater degree of separation than they generally denote.

Parentheses. Marks of Parentheses are used to enclose words which explain, modify or add to the main proposition, when so introduced as to break the connection between dependent parts and interfere with the harmonious flow.

Example.—The Saxons (for they descended from the ancient Sacæ) retained for centuries the energy and morality of their ancestors.

If no point would be required between the parts of a sentence in case there were no parenthesis, then no points should be used at that place in addition to the marks of parenthesis.

Example.—He (the aforesaid defendant) was ignorant of this matter.

If a point would be required between the parts of a sentence, in case no parenthesis were there, then, when the parenthesis is inserted, said point should be also inserted, and should be placed after the second mark of parenthesis.

Example.—Pride, in some disguise or other (often a secret to the proud man himself), is the most ordinary spring of action.

When a complete sentence or complete sentences are enclosed in marks of parenthesis, they should be punctuated the same as if not thus enclosed, and the last point of punctuation should come before the last mark of parenthesis.

Brackets. Brackets are used principally in quoted passages, to enclose words improperly omitted or added by way of correction, observation or explanation.

Example.—She is weary with [of] life.

In regard to the use of points before and after the brackets, and the punctuation of any sentence or clause within the brackets, the same rules apply that have been given in regard to the marks of parenthesis.

The Apostrophe denotes the omission of a letter or letters, and the possessive case of nouns.

Examples.—*'Tis* for *it is; e'en* for *even; don't* for *do not; o'clock* for *on* [the] *clock.* So in the possessive: *hero's, Charles', men's, heroes', children's.*

Pronouns never take the apostrophe in the possessive case.

The Hyphen is used to connect the elements of a compound word, when each retains its own accent.

Example.—Castle-builder, father-in-law.

The hyphen is also used after a complete syllable at the end of a line, to connect the parts of a divided word; also to denote that the final vowel of a prefix does not form a diphthong with the first vowel of a primitive; but in this latter case a mark of diæresis is more appropriate.

Example.—Pre-engagement, re-establish [preëngagement, reëstablish.]

Quotation Points are used to enclose words quoted from an author or speaker, or represented in narrative as employed in dialogue.

Example.—"Remember now thy Creator in the days of thy youth."

When the substance merely is given, and not the exact words, quotation points are unnecessary.

Matter within quotation points is to be punctuated just as if it stood in any other position.

When quotation points are needed at the end of a sentence, they come after whatever other point is required there if this point applies to the quotation alone, but before this point if it applies to the whole sentence and not exclusively to the quotation.

Example.—Pilate asked, "What is truth?" Where now is the "man of destiny"?

When a quotation encloses within it another quotation, the external quotation has the double marks, and the one included has only the single marks.

Example.—It has been well said, "The command, 'Thou shall not kill,' forbids many crimes besides that of murder."

If the enclosed or secondary quotation ends a sentence, three apostrophes will there come together, of which the first will belong to the enclosed quotation, and the other two to the original. When an enclosed quotation itself contains words or phrases that are quoted, those words or phrases have the double marks.

Example.—"French says, 'What a lesson the word "diligence" contains!'"

When the sentence becomes more involved than this, the additional marks of quotation would create confusion, and may therefore be omitted.

In some publications the order of single and double quotations is inverted, single quotation marks being used where custom demands double marks, and quotations within quotations being indicated by double marks.

The Pauses.

The pauses that are made in the natural flow of speech have in reality no definite and invariable proportions. Children are often told to pause at a comma while they count *one;* at a semicolon, *one, two;* at a colon, *one, two, three;* at a period, *one, two, three, four.* This may be of some use, as teaching them to observe these stops that they may catch the sense; but the standard itself is variable, and so are the times which good sense gives to the points. As a final stop, the period is immeasurable. The following general directions are as good as any that can be given:

The comma denotes the shortest pause; the semicolon, a pause double that of the comma; the colon, a pause double that of the semi-colon; and the period, or full-stop, a pause double that of the colon. The pauses required by the other marks vary according to the structure of the sentence and their place in it.

Other Marks.

The **Ellipsis,** or **Suppression,** denotes the omission of some letters or words.

Examples.—K—g, for king; G****m, for Graham; A....s, for Adams; H—m—hr—y, for Humphrey.

The **Caret,** used only in writing, shows where to insert words or letters that have been accidentally omitted.

Example.—James said he would ∧ be home to-night.

The **Index,** or **Hand** [☞], points out something remarkable, or what the reader should particularly observe.

The **Brace** [⎫] serves to unite a triplet, or to connect several terms to something to which they are all related.

Examples.—

Case { Nominative. Possessive. Objective.

Committee { W. Brown. H. Jones. R. Smith. M. Mills.

The **Section** [§] marks the smaller divisions of a book or chapter, and, with the help of numbers, serves to abridge references.

The **Paragraph** [¶] denotes the commencement of a new subject. The parts of discourse which are called paragraphs are in general sufficiently distinguished by beginning a new line and carrying the first word a little backwards.

Leaders [.....] are used in contents and indexes of books and similar matter to lead the eye to the end of the line for the completion of the sense.

Example.—Wharfage,.....$50.

The **Asterisk**, or **Star** [*], the **Obelisk**, or **Dagger** [†], the **Diesis**, or **Double Dagger** [‡], and the **Parallels** [‖], refer to marginal notes or explanations at the bottom of the page. They are marks of reference.

The **Asterism**, or **Three Stars** [⁂], a sign not very often used, is placed before a long or general note to mark it as a note without giving it a particular reference.

Accent Marks.

The accent marks are used to denote the proper pronunciation of words. They are:

The **Acute** [´], which marks the syllable which requires the principal stress in pronunciation; or to denote a rising inflection of the voice, or a close or short vowel.

The **Grave** [`] is used in opposition to the acute to distinguish an open or long vowel, or to denote the falling inflection of the voice.

The **Circumflex** [^] generally denotes a broad sound or a combination of the acute and grave.

The **Breve** [˘] is used to denote either a close vowel or a syllable of short quantity.

The **Macron** [¯] is used to denote either an open vowel or a syllable of long quantity.

The **Diæresis** [¨] is placed over the latter of two vowels to show they are to be pronounced in separate syllables; as, *aërial*. In German this character is called the **Umlaut**, and denotes a modification of the sound of a vowel over which it is placed, peculiar to the Germanic languages.

The **Cedilla** [¸] is placed under the letter *c* to give it the sound of *s* before *a* or *o*; as in the words *façade, Alençon*.

The **Tilde** [~] is placed over the letter *n* in Spanish words to give it the sound of *ny*; as, *señor, miñon*.

Emphasis.

Emphasis, or prominence to certain words or sentences, should be designated by the writer by underscoring the words or phrases to be emphasized. One line indicates italics; two lines, small capitals; three lines, large capitals; four lines, italic capitals.

Example.—Strike! strike! strike! strike! strike! for freedom!

This would appear in print thus:

Strike! *strike!* STRIKE! STRIKE! *STRIKE!* for freedom!

ETYMOLOGY.

Etymology treats of the different parts of speech with their classes and modifications. To express our thoughts we use nine classes of words, called the **Parts of Speech.** These nine parts of speech are called Article, Noun, Adjective, Pronoun, Verb, Adverb, Conjunction, Preposition and Interjection.

The Parts of Speech.

The **Article** is the word *the, a* or *an*, which points out, defines or limits a noun; as, *the* air, *an* island, *a* ship.

A **Noun** is the name of any person, place or thing that can be known or mentioned; as, *George, York, man, apple, truth*.

An **Adjective** is a word which qualifies a noun; as, a *wise* man, a *new* book.

A **Pronoun** is a word used instead of a noun; as, the boy loves *his* book; *he* has long lessons, and *he* learns *them* well.

A **Verb** is a word that signifies *to be, to act* or *to be acted upon*; as, I *am*, I *rule*, I *am ruled*; I *love*, thou *lovest*, he *loves*.

An **Adverb** is a word which modifies a verb, adverb or adjective; as, they are now *here*, studying *very diligently*.

A **Conjunction** is a word which joins words and sentences together; as, Thou *and* he are happy, *because* you are good.

A **Preposition** is a word used to express the relation of different things or thoughts to each other; as, The paper lies *before* me *on* the desk.

An **Interjection** is a word that is uttered merely to indicate some strong or sudden emotion of the mind; as, *Oh! alas! avaunt!*

Some Rules of Grammar.

Parsing is the revolving or explaining of a sentence or of some selected word or words, according to the definitions and rules of grammar.

A **Sentence** is an assemblage of words making complete sense; as, Reward sweetens labor.

A **Definition** of anything or class of things is such a description of it as distinguishes that entire thing or class from everything else, by briefly telling what it is.

A **Rule of Grammar** is some law, more or less general, by which custom regulates and prescribes the right use of language.

A **Praxis** is a method of exercise showing the learner how to proceed.

An **Example** is a particular instance or model serving to prove or illustrate some given proposition or truth.

An **Exercise** is some technical performance required of the learner in order to test his knowledge or skill by use.

The article *an* is used instead of *a* before words beginning with a vowel or a silent *h*.

A **Common Noun** is a name that may be applied to all objects of the same kind; as, *boy, nation, country.*

A **Proper Noun** is the name of an individual object which cannot be applied to all others of the same kind; as, *Richard, Peru.*

A **Collective Noun** is the name of a body of individual living objects; as, *nation, mob, herd.*

An **Abstract Noun** is the name of a quality or property; as, *obstinacy, benevolence.*

A **Participial Noun** is the name of an action or state, ending in *ing*; as, *Seeing* is *believing.*

A **Diminutive Noun** is the name of something of its kind, derived from a primitive by the addition of a suffix. Diminutives are formed with the suffixes *kin, let, ling, ock, ule, cule, cle, icle, et* or *aster*, meaning *a little. Streamlet*, a little stream; *gosling*, a young goose; *animalcule*, a little animal, are diminutives.

In the gender of some nouns the feminine is formed by appending the suffix *ess, ine, ina, ix* or *a* to the masculine; as, *abbot, abbess; hero, heroine; czar, czarina; testator, testatrix; sultan, sultana.*

Plural of Nouns.

The **Plural** of most nouns is formed by adding *s* to the singular; as, *hat, hats; number, numbers.*

Nouns ending in *s, sh, x, z,* and *ch* soft, form their plural by adding *es*; as, *dish, dishes; gas, gases; waltz, waltzes; tax, taxes; church, churches.*

Nouns ending in *y*, preceded by a consonant, change the *y* into *ies*; as, *fly, flies; obloquy, obloquies.*

Nouns ending in *i, o* or *u*, preceded by a consonant, take *es* in the plural; as, *alkali, alkalies; cargo, cargoes; gnu, gnues.* Exceptions, *canto, duodecimo, grotto, junto, lasso, majordomo, memento, octavo, portico, quarto, sorocco, solo* and *typo*, which form the plural by adding *s.*

The following nouns ending in *f* and *fe* form the plural by changing *f* or *fe* into *ves*: *Beef, leaf, sheaf, thief, loaf, calf, half, elf, self, shelf, wolf, life, knife, wife*; thus, *beeves, leaves, wives*, etc. *Wharf* makes both *wharfs* and *wharves. Staff*, a cane, makes *staffs* and *staves.*

Some nouns are irregular in the plural; as, *child, children; tooth, teeth; mouse, mice.*

The following nouns have both a regular and an irregular plural, with different meanings:

Brother,	brothers (of a family);	brethren (of a society).
Die,	dies (stamps for coining);	dice (cubes for gaming).
Genius,	geniuses (men of genius);	genii (spirits).
Index,	indexes (tables of contents);	indices (algebraic exponents)
Pea,	peas (distinct grains);	pease (taken in bulk).
Penny,	pennies (distinct coins);	pence (an amount of money).

Compound nouns, to form their plural, generally vary their principal element; as, *step-son, step-sons; sister-in-law, sisters-in-law; cousin-german, cousins-german; knight-errant, knights-errant.*

The following compounds vary both elements:

Man-child, men-children; man-servant, men-servants; man-singer, men-singers; woman-servant, women-servants; woman-singer, women-singers; knight-templar, knights-templars; knight-baronet, knights-baronets; knight-hospitaller, knights-hospitallers.

Rules for the Plural of Foreign Nouns.

In forming foreign plurals the following rules apply: The termination

A becomes **Æ**, sometimes **Ata**: *larva, larvæ; miasma, miasmata.*

Is becomes **Es**, sometimes **Ides**: *axis, axes; apsis, apsides.*

Us becomes **I**: *magus, magi*; but, *genus, genera.*

Um and **On** become **A**: *datum, data; phenomenon, phenomena.*

Ex and **Ix** become **Ices**. *vortex, vortices; helix, helices.*

O becomes **I**: *virtuoso, virtuosi.*

Errors in Speech.

It is not the purpose of this work to go into all the minutiæ and details of grammatical rules, but the following rules and examples will show the reader how to avoid the common and most glaring errors in the use of language. These rules come under four divisions: the improper arrangement of words; improper words or expressions; too few words, and too many words. A careful scrutiny of the examples quoted below will be of great benefit to the reader.

These rules belong mainly to that division of Grammar termed **Syntax**, which means putting together, and which is that part of Grammar which treats of the relations and arrangements of words put together. The rules that bear on these relations are called the **Rules of Syntax.** Violations of these rules are called **False Syntax.**

AVOID THESE ERRORS:

1. Do not say, "They said they could run faster than me;" but, "They said they could run faster than I." *Me* must be changed to *I*, because it is the subject of the verb *could run* understood.

2. Do not say, "Oh, blissful hour, and thrice blessed us that see it;" but, "Oh, blissful hour, and thrice blessed we that see it." *Us* must be changed to *we*, the nominative case, because it is used independently.

3. When there are several modifying substantives, they are all in the possessive case. If they separately modify different nouns, each has the sign of the possessive. If they jointly modify the same noun, the possessive sign is annexed only to the last. If John, George and Henry have different fathers, I say: "John's, George's and Henry's fathers have arrived;" that is, John's father, George's father and Henry's father. If they are brothers, I say: "John, George and Henry's father has arrived." *John* and *George* are in the possessive case; but as all these substantives jointly modify the same noun, *father* expressed, the sign of the possessive is annexed to the last only.

4. A succession of possessives is inelegant. Do not say, "Our minister's son's partner's brother-in-law's store;" but, "The store belonging to the brother-in-law of the partner of our minister's son."

5. The possessive case and *of* with the objective are not always equivalent. Thus, "*The Lord's day* is Sunday; but *the day of the Lord* is *the day of judgment.*" We may speak of *the flower of the field*, but not of *the field's flower.*

6. Be careful not to use too many words. Do not say, "Consider of my offer;" but, "Consider my offer." Also, not "He will soon repent him of his crime;" but, "He will soon repent of his crime."

7. Do not use too few words. Do not say: "Beware the tempter;" but, "Beware of the tempter."

8. Avoid making the same word the object of a verb and preposition, or of two prepositions, separated by intervening words. "They not only themselves vigorously *prosecuted*, but called on their allies to aid them *in*, the *war*." Correct thus: "They not only themselves prosecuted the war, but called on their allies for aid."

9. Some verbs are frequently followed by two objectives. "We promised the best speaker a prize." "Will you buy me a telescope." If the objects are transposed a preposition is inserted. "Will you buy a telescope *for* me." "We promised a prize *to* the best speaker."

10. When such constructions are thrown into the passive form, the object of the verb, and not that of the preposition, must be made the subject; as, "A prize was promised to the best speaker." Not, "The best speaker was promised a prize."

11. *To* is omitted before *home*, *north*, *south*, etc., when not modified by other words, but expressed when they are modified; as, "He went home, north, south." But, "He went to his home, to the north, to the south."

12. Be careful in the use of *who* and *whom*. Do not say, "Who should I trust?" but, "Whom should I trust?"

13. Do not say, "It was me;" but, "It was I." After the verb *to be* the pronoun must be in the nominative. Thus again: "Did you suppose it was I?" not, "Did you suppose it was me." "It is he;" not, "It is him."

14. Be careful to use the correct number and person of the pronoun. Do not say, "One cannot collect their thoughts;" but, "One cannot collect his thoughts." Say: "I have lost the scissors; have you seen them?" Not, "have you seen it?"

15. After a superlative use *that* instead of *who;* as, "Hannibal was the deadliest enemy that Rome ever had."

16. Never use *which* to apply to persons except as an interrogative. Thus, "The man whom I met;" not, "The man which I met."

17. Do not use the pronoun *them* for the adjective *those*. "You might have saved *those* trees;" not, "You might have saved *them* trees."

18. Say, *this sort of men;* not, *these sort*, because *sort* is singular. *These tidings;* not, *this tidings*.

19. *This here* and *these 'ere*, *that there* and *those 'ere* are gross errors. Correct by omitting the adverbs. *This boy;* not, *this here boy*.

20. Say, "By this means;" not, "By these means." *Means* is singular.

21. Adjectives whose meaning precludes the idea of comparison must not be compared. Do not say, the *chiefest* beauty, a *truer* statement, so *faultless* a character, the *fartherest* house, a *more nearer* view, the *least surest* course. Correct thus: the *chief* beauty, a *more correct* statement, a character *so nearly faultless*, the *farthest* house, a *nearer* view, the *least wise* course.

22. After the comparative degree, use *other* with the latter of the terms compared if it includes the former, and only then. "The Amazon is longer than any river." Correct: "The Amazon is longer than any *other* river." Otherwise we assert, the Amazon being a river, that it is longer than itself.

23. An adjective in the comparative or superlative must precede an adjective modified by *more* or *most* relating to the same noun. Do not say: "A more interesting and larger volume;" but, "A larger and more interesting volume."

24. Be sure that the verb agrees with the right word. When it is separated from its subject by an intervening substantive, there is a tendency to make it agree with the latter. "A succession of excitements are sure to distract the mind from study." Wrong, because *succession* is the subject, and not *excitements*, which is the object of the preposition *of*. "A succession of excitements *is*," etc., is correct. So, "Your vessel, together with twelve others, *have* arrived." It should be, "Your vessel, together with twelve others, *has*," etc. So, "This confusion of ideas in educated minds *is* [not *are*] to be deplored."

25. Do not use, "Says I;" but, "Say I."

26. Do not say *has went* for *has gone; having wrote* for *having written; I seen* for *I saw; I done* for *I did*.

27. Avoid corrupt forms. Among the most common of these are *had have* for *had; hadn't ought* for *ought not; I'm a mind* for *I have a mind; arn't* for *are not; moughtn't* for *might not*, etc.

28. The preposition *for* must not be used immediately before an infinitive. Do not say: "He is trying hard *for* to enter college;" but, "He is trying hard to enter college."

29. The preposition *of* should not be introduced between a participle and its object. Do not say, "by erecting of statues;" but, "by erecting statues." Not, "for controlling of elections;" but, controlling elections." It is sometimes proper, however, to use *of* when the participle is preceded by *the*.

30. Do not use *how*, *as how*, or *how that*, for the conjunction *that*. "She said *as how* she would come." "Have a care *how* you listen to the tempter." Correct thus: "She said *that* she would come." "Have a care *that* you do not listen to the tempter."

31. Do not use two negatives. Do not say: "I did *not* do *nothing;*" but, "I did not do *anything;*" or, "I did nothing." Not, "It makes *no* difference to you *nor* me;" but, "It makes *no* difference to you *or* me."

32. Care must be taken to place *only* and *not only* next to the word or words they are intended to modify. Otherwise they give a wrong impression of the meaning. If I say, "He only hires the store," *only* modifies *hire*, and the impression conveyed is that another verb will follow. He only *hires* the store, he does not *own* it. If I say: "He hires only the store," *only* modifies *store*, and the meaning is, he hires the store, but nothing else—not the rest of the house.

33. Do not use an adjective for an adverb. Do not say: "He writes elegant;" but, "He writes elegantly."

34. After certain verbs *by* is used before a word denoting an agent or living object, *with* before a word denoting an instrument or inanimate object. We say, accompanied *by* his friends, accompanied *with* illustrations; attended *by* a servant, attended *with* evil consequences; illustrated *by* an artist, illustrated *with* engravings; killed *by* an assassin, killed *with* a dagger. *Followed* takes *by* only.

35. Do not use *if* for *whether*—or *but*, *but that* or *lest* for *that*—after the verbs *doubt*, *fear*, *deny*, or their equivalents. "Do you know *if* [correct to *whether*] a train will start this evening." "Pope was apprehensive *lest* [say *that*] his meaning might be mistaken." "Nobody can deny *but that* [say *that*] experience is the best teacher."

36. Be careful to use *nor*, not *or*, as the correlative of *neither*. "Neither youth *nor* [not *or*] innocence availed as a protection."

37. Be careful to use *so....as*, not *as....as*, after a negative denying equality of degree. "Few cities were *so* [not *as*] magnificent *as* Babylon."

38. Do not add a pronoun to its antecedent when the antecedent alone would express its meaning. Do not say, "James *he* said;" but, "James said."

39. Avoid double comparatives and superlatives. "The *most happiest* day of my life." Correct: "The happiest day."

40. Avoid tautology or the recurrence of the same word or expression. "The man *that* I met *that* was lame." Say: "The man that I met *who* was lame.

41. Avoid the use of improper words. Do not say: "He is *laying* down;" but, "He is *lying* down." Not: "We *set* up;" but, "We *sat* up." Not: "*Learn* me;" but, "*Teach* me." Not: "I *knowed* it;" but, "I *knew* it." Not: "The coat *sets* well;" but, "The coat *sits* well." Not: "*Them* that expect nothing;" but, "*They* that expect nothing."

42. Do not say, "The Volga is the longest *of any* river in Europe." Omit *of any* and correct: "The Volga is the longest river in Europe."

43. Apply *who* to persons, *which* to things, and *that* to both.

44. Do not say: "Which did you say *was* the largest lake in the world?" Say *is*. Present facts and unchangeable truths must be expressed in the present tense.

45. Avoid all improper modes of expressing comparison or the plural of nouns. Do not say: *beautifullest;* but, *most beautiful.* Not "I saw three *deers;*" but, "I saw three *deer.*"

46. Avoid clumsy use of participles. "*My being sick* was the cause of *my being absent.*" Correct thus: "My sickness was the cause of my absence."

47. Do not needlessly use the passive form in verbs. "He *is* come;" say, "He *has* come."

48. Do not use needless compound participles. "The theatres are now *being* open on Sundays;" say, "The theatres are now open Sundays."

49. An adverb should not be used where a preposition and a relative pronoun would better express the relation of the terms. "A cause where [say *in which*] justice is so much concerned."

50. When verbs are connected by a conjunction they must either agree in mood, tense and form, or have separate nominatives expressed. "They would neither go in themselves, nor *suffered* [say, *would suffer*] others to enter." "If he understands his business, and *attend* [say *attends*] to it, wherein is he deficient?"

FIGURES.

A **Figure** in Grammar is an intentional deviation from the ordinary spelling, formation, construction or application of words.

There are, accordingly, *figures of Orthography, figures of Etymology, figures of Syntax* and *figures of Rhetoric.*

When figures are judiciously employed, they both strengthen and adorn expression. They occur more frequently in poetry than in prose, and several of them are merely poetic licenses.

Figures of Orthography.

A **Figure of Orthography** is an intentional deviation from the ordinary or true spelling of a word.

The principal figures of Orthography are two, namely:

Mimesis, or **Mimicry,** a ludicrous imitation of some mistake or mispronunciation of a word, in which the error is mimicked by a false spelling or the taking of one word for another.

Example.—"Ay, he was *porn* at Monmouth, Captain Gower."—*Shakspere.*

"*Maister,* says he, have you any *wery* good *weal* in your *vallet?*"—*Columbian Orator.*

This figure includes all imitations of brogues and dialects.

Archaism is a word or phrase expressed according to ancient usage, and not according to our modern orthography.

Examples.—"Unpleasing sight, I *ween.*"

"Bow-bent with *eld,* his beard of snowy hue."

Figures of Etymology.

A **Figure of Etymology** is an intentional deviation from the ordinary formation of a word. The principal figures of Etymology are eight.

Aphæresis is the elision of some of the initial letters of a word; as, *'gainst, 'gan, 'neath,* for *against, began, beneath.*

Prothesis is the prefixing of an expletive syllable to a word; as, *a*down, *a*ppaid, *be*strown, *e*vanished, *y*clad, for *down, paid, strown, vanished, clad.*

Syncope is the elision of some of the middle letters of a word; as, *med'cine* for *medicine; e'en* for *even; o'er* for *over; conq'ring* for *conquering; se'nnight* for *sevennight.*

Apocope is the elision of some of the final letters of a word; as, *tho'* for *though; th'* for *the; t'other* for *the other.*

Paragoge is the annexing of an expletive syllable to a word; as, *withouten* for *without; deary* for *dear; Johnny* for *John.*

Diæresis is the separating of two vowels that might form a diphthong; as, *coöperate,* not *cooperate; ažronaut,* not *æronaut; orthoëpy,* not *orthœpy.*

Synæresis is the sinking of two syllables into one; as, *seest* for *seëst; tacked* for *tack-ed; drowned* for *drown-ed.*

Tmesis is the inserting of a word between the parts of a compound; as, "On *which* side *soever;*" "*To* us *ward;*" "*To* God *ward.*"

Figures of Syntax.

A **Figure of Syntax** is an intentional deviation from the ordinary construction of words. The principal figures of Syntax are seven.

Ellipsis is the omission of some word or words which are necessary to complete the construction, but not necessary to convey the meaning. Such words are said to be *understood,* because they are received as belonging to the sentence though they are not uttered; as, "A man and [*a*] woman;" "The common [*law*] and the statute law;" "I love [*him*] and [*I*] fear him;" "The active commonly do more than they are bound to do; the indolent [*commonly do*] less [*than they are bound to do*].

Aposcopesis is the leaving of something unsaid; as, "*Whom I*—but first 'tis best the billows to restrain."

Zeugma is the referring of a word to two different ones which in strict syntax can agree with only one of them; as, "In him who is, or him who finds a *friend.*"

Pleonasm is the introduction of superfluous words; as, "*He* that hath ears to hear, let him hear;" "I know thee *who thou art;*" "All ye inhabitants of the world, *and dwellers on the earth.*"

Syllepsis is agreement formed according to the figurative sense of a word, or the mental conception of the thing spoken of, and not according to the literal or common use of the term; it is therefore, in general, connected with some figure of Rhetoric; as, "The *Word* was made flesh and dwelt among us, and we beheld *his* glory." "Then Philip went down to the *city* of Samaria and preached Christ unto *them.*"

Enallage is the use of one part of speech, or of one modification, for another; as, "*You know* that *you are* Brutus that *speak* this;" "Destruction's gates at once *unlock.*"

Hyperbaton is the transposition of words; as, "He wanders *earth around.*"

COMPOSITION.

How to Write the English Language Correctly.

EVERY educated person desires to write well, and with some elegance of diction. Accuracy in the arrangement of words and the ready and correct expression of them in written language is not only a desirable but a needful attainment.

This is taught by **Composition.**

Style is the particular manner in which a person expresses his conceptions by means of language. It is different from mere words, and is not to be regulated altogether by rules of construction. It always has some relation to the author's peculiar manner of thinking, and, being that sort of expression which his thoughts most readily assume, sometimes partakes not only of what is characteristic of the man, but even of national peculiarity. The words which an author employs may be proper and so constructed as to violate no rule of syntax, and yet his style may have great faults.

To designate the general characters of style, such epithets as concise, diffuse—neat, negligent—nervous, feeble—simple, affected—easy, stiff—perspicuous, obscure—elegant, florid—are employed. A considerable diversity of style may be found in compositions all equally excellent in their kind. And, indeed, different subjects, as well as the different endowments by which genius is distinguished, require this diversity. But in forming his style the learner should remember that a negligent, feeble, affected, stiff or obscure style is always faulty, and that perspicuity, ease, simplicity, strength and neatness are qualities always to be aimed at.

In order to acquire a good style, the frequent practice of composing and writing something is indispensably necessary. Without exercise and diligent attention, rules or precepts for the attainment of this object will be of no avail. When the learner has acquired such a knowledge of grammar as to be in some degree qualified for the undertaking, he should devote a stated portion of his time to composition. This exercise will bring the powers of his mind into requisition in a way that is well calculated to strengthen them. And if he has opportunity for reading, he may, by a diligent perusal of the best authors, acquire both language and taste, as well as sentiment; and these three are the essential qualifications of a good writer.

In regard to the qualities which constitute a good style, we can here offer no more than a few brief hints. With respect to words and phrases, particular attention should be paid to **purity, propriety** and **precision;** and with respect to sentences, to **perspicuity, unity** and **strength.** Under each of these heads we shall arrange, in the form of short precepts, a few of the most important directions for the forming of style.

Of Purity.

Purity of style consists in the use of only such words and phrases as belong to the language which we write or speak.

1. Avoid the unnecessary use of foreign words or idioms; as, *fraicheur, hauteur, delicatesse, politesse;* he *repented himself;* it *serves to* an excellent purpose.

2. Avoid, on ordinary occasions, obsolete or antiquated words; as, *whilom, erewhile, albeit, aforetime, methinks.*

3. Avoid strange or unauthorized words; as, *flutteration, unspectator, judgematical, electerized.*

4. Avoid bombast, or affectation of fine writing. It is ridiculous, however serious the subject; as, "Personifications, however rich the depictions, and unconstrained their latitude; analysis, however imposing the objects of parallel and the media of comparison: can never expose the consequences of sin to the extent of fact, or the range of demonstration."

Of Propriety.

Propriety of language consists in the selection and right construction of such words as the best usage has appropriated to those ideas which we intend to express.

1. Avoid low and provincial expressions; such as, "*says I*," "*thinks I to myself*," "*to get into a scrape*," "Stay here *while* I return."

2. In writing prose, avoid words or phrases that are nearly poetical; such as *morn, eve, plaint, lone, amid, oft, steepy*.

3. Avoid technical terms, except where they are necessary in treating of a particular art or science. In technology they are proper.

4. Avoid the recurrence of words in the different senses, or such repetition of words as denotes paucity of language; as, "His own *reason* might have suggested better *reasons*." "Gregory *favored* the undertaking for no other reason than this: the manager, in countenance, *favored* his friend." "I *want* to go and see what he *wants*."

5. Supply words that are wanting. Thus, instead of saying, "This action increased his former success," say, "This action increased *the merit of* his former success."

6. Avoid equivocal or ambiguous expressions; as, "His *memory* shall be lost on the earth." "I long since learned to like nothing but what you *do*."

7. Avoid unintelligible and inconsistent expressions; as, "I have observed that the superiority among these coffee-house politicians proceeds from *an opinion* of gallantry and fashion." "These words do not convey even an *opaque* idea of the author's meaning."

8. Observe the natural order of things and events and do not put the cart before the horse; as, "The scribes *taught* and *studied* the law of Moses." "They can neither *return to* nor *leave* their houses." "He tumbled, *head over heels*, into the water."

Of Precision.

Precision consists of avoiding all superfluous words and adapting the expression exactly to the thought, so as to exhibit neither more nor less than is intended by the author.

1. Avoid a useless tautology, either of expression or sentiment; as, "return *again;* return *back again;* converse *together;* rise *up;* fall *down;* enter *in;* a mutual likeness *to each other;* the *latter* end; *liquid* streams; *grateful* thanks; the last *of all;* throughout the *whole* book." "Wherever I go, he *always* meets me there." "Where is he at?" "*In there.*" "Nothing *else* but that." "It is odious *and hateful.*" "His faithfulness *and fidelity* should be rewarded."

2. Observe the exact meaning of words accounted synonymous, and employ those which are the most suitable; as, "A diligent scholar may *acquire* knowledge, *gain* celebrity, *obtain* rewards, *win* prizes and *get* high honor, though he *earn* no money." These six verbs have nearly the same meaning, and yet they cannot well be changed.

Of Perspicuity.

Perspicuity consists in freedom from obscurity or ambiguity. It is a quality so essential in every kind of writing that for the want of it no merit can atone. "Without it," says Blair, "the richest ornaments of style only glimmer through the dark, and puzzle instead of pleasing the reader." Perspicuity, being the most important property of language, and an exemption from the most embarrassing defects, seems even to rise to a degree of positive beauty. We are naturally pleased with a style that frees us from all suspense in regard to the meaning; that "carries us through the subject without embarrassment or confusion, and that always flows like a limpid stream, through which we can see to the very bottom."

1. Place adjectives, relative pronouns, participles, adverbs and explanatory phrases as near as possible to the words to which they relate, and in such a situation as the sense requires. The following sentences are deficient in perspicuity: "Reverence is the veneration paid to superior sanctity, *intermixed* with a degree of awe." "The Romans understood liberty, *at least*, as well as we." "Taste was never *made to cater* for vanity."

2. In prose avoid a poetic collocation of words.

3. Avoid faulty ellipsis, and repeat all words necessary to preserve the sense. The following sentences require the words inserted in brackets: "Restlessness of mind disqualifies us both for the enjoyment of peace and [*for*] the performance of our duty." "The Christian religion gives a more lovely character to God than any [*other*] religion ever did."

Of Unity.

Unity consists in avoiding useless breaks or pauses and keeping one object predominant throughout a sentence or paragraph. Every sentence, whether its parts be few or many, requires strict unity.

1. Avoid brokenness and hitching. The following paragraph lacks the very quality of which it speaks: "But most of all, in a single sentence, is required *the strictest unity. It* may consist of parts, *indeed*, but *these parts* must be so closely bound together as to make the impression upon the mind *of* one object, not *of* many."

2. Treat different topics in separate paragraphs, and distinct sentiments in separate sentences. Error: "The two volumes are, indeed, intimately *connected* and *constitute* one uniform system of English grammar."

3. In the process of a sentence, do not desert the principal subject in favor of adjuncts. Error: "To substantives belong gender, number and case; and *they are all* of the third person *when spoken of*, and of the second *when spoken to*."

4. Do not introduce parentheses except where a lively remark may be thrown in without diverting the mind too long from the principal subject.

Of Strength.

Strength consists in giving to the several words and members of a sentence such an arrangement as shall bring out the sense to the best advantage and present every idea in its due

importance. A concise style is the most favorable to strength.

1. Place the most important words in the situation in which they will make the strongest impression.

2. A weaker assertion should not follow a stronger; and when the sentence consists of two members, the longer should be the concluding one.

3. When things are to be compared or contrasted, their resemblance or opposition will be rendered more striking if some resemblance in the language and construction be preserved.

4. It is, in general, ungraceful to end a sentence with an adverb, a preposition, or any inconsiderable word or phrase, which may either be omitted or introduced earlier.

A Discourse and its Parts.

A composition in which a proposition is laid down and an attempt made to persuade others that it is true is an *argumentative discourse.* If it is on religious subjects, it is a sermon; on other subjects, a speech or oration.

Orations by the ancients were divided into six parts, to-wit:

The Exordium, or introduction, in which the speaker strove to make his hearers attentive and disposed to receive his arguments.

The Division, or plan the speaker intended to pursue in treating the subject.

The Statement, in which the subject and facts connected therewith were laid down.

The Reasoning, in which the arguments were set forth.

The Appeal to the feelings—a most important division of a discourse.

The Peroration, in which the speaker summed up all he had said and concluded his discourse.

An Essay.

An Essay is a composition, generally on some abstract subject, devoted rather to an investigation of causes, effects, etc., than to an examination of visible and material peculiarities. Brief descriptions and narrations may be introduced with advantage.

Figures of Rhetoric.

A **Figure of Rhetoric** is an intentional deviation from the ordinary application of words. Some figures of this kind are commonly called *Tropes*, i.e., *turns.*

The principal figures of Rhetoric are twenty-two, namely:

A **Simile** is a simple and express comparison and is generally introduced by *like*, *as* or *so.*

Example.—"At first, *like thunder's distant tone*,
The rattling din came rolling on."—*Hogg.*
"Man, *like the generous vine*, supported lives.
The strength he gains is from th' embrace he gives."
—*Pope.*

A **Metaphor** is a figure that expresses the resemblance of two objects by applying either the name or some attribute, adjunct or action of the one directly to the other.

Example.—"His eye was *morning's brightest ray.*"—*Hogg.*
"Beside him *sleeps* the warrior's bow."
—*Longfellow.*

An **Allegory** is a continued narration of fictitious events, designed to represent and illustrate important realities. Thus the Psalmist represents the *Jewish nation* under the symbol of a *vine:* "Thou hast brought a vine out of Egypt; thou hast cast out the heathen and planted it," etc.

NOTE.—The allegory includes most of those similitudes which in the Scriptures are called *parables;* it includes also the better sort of *fables.*

Metonymy is a change of names—calling one object by the name of another that sustains some relation to it. The principal relations on which this figure is founded are as follows:

1. Cause and effect; as, "Extravagance is the *ruin* of many"—that is, the *cause of* ruin.

2. Ancestor and descendants; as, "Then shall *Judah* triumph"—that is, the *descendants of Judah.*

3. Attribute and that to which it belongs; as, "*Pride* shall be brought low"—that is, the *proud.*

4. Container and the thing contained; as, "The *kettle* boils"—that is, the *water in the kettle.*

5. Emblem and thing represented; as, "This was offensive to the *crown*"—that is, the *king.*

6. Material and thing made of it; as, "*Gold* is all-powerful"—that is, *money.*

Synecdoche is the meaning of the whole for a part, or of a part for the whole; as, "This *roof* [*i.e.*, house] protects you." "Now the *year* [*i.e.*, summer] is beautiful."

Hyperbole is extravagant exaggeration, in which the imagination is indulged beyond the sobriety of truth.

Example.—"The sky *shrunk upward with unusual dread*,
And trembling Tiber *div'd beneath his bed.*"—*Dryden.*

Vision, or **Imagery**, is a figure by which the speaker represents the objects of his imagination as actually before his eyes and present to his senses.

Example.—"I see the dagger-crest of Mar!
I see the Moray's silver star
Wave o'er the cloud of Saxon war
That up the lake comes winding far!"—*Scott.*

Apostrophe is a turning from the regular course of the subject into an animated address.

Example.—"Death is swallowed up in victory. O Death! where is thy sting? O grave! where is thy victory?"—*I. Cor., 15: 54-55.*

Prosopopœia, or **Personification**, is a figure by which in imagination we ascribe intelligence and personality to unintelligent beings or abstract qualities.

Examples.—"The *Worm*, aware of his intent,
Harangued him thus, right eloquent."—*Cowper.*
"Lo, steel-clad *War* his gorgeous standard rears!"—*Rogers.*

Erotesis is a figure in which the speaker adopts the form of interrogation, not to express a doubt, but, in general, confidently to assert the reverse of what is asked.

Example.—"Hast thou an arm like God? or canst thou thunder with a voice like him?"—*Job, 40:9.*

Ecphonesis is a pathetic exclamation, denoting some violent emotion of the mind.

Example.—"O liberty!—O sound once delightful to every Roman ear!—O sacred privilege of Roman citizenship!—once sacred—now trampled upon."—*Cicero.*

Antithesis is a placing of things in opposition to heighten their effect by contrast.

Example.—"Contrasted faults through all his manners reign :
Though *poor, luxurious ;* though *submissive, vain ;*
Though *grave,* yet *trifling ; zealous,* yet *untrue ;*
And e'en *in penance, planning sins anew.*"—*Goldsmith.*

Climax is a figure in which the sense is made to advance by successive steps, to rise gradually to what is more important and interesting, or to descend to what is more and more minute and particular.

Examples.—"Then Virtue *became silent, heartsick, pined away and died.*"

Irony is a figure in which the speaker sneeringly utters the direct reverse of what he intends shall be understood; as, "Go on; *time is worth nothing*"—meaning that it is very valuable.

Apophasis is the pretended suppression of what one is all the time actually mentioning; as, "*I shall say nothing* of the immorality prevalent in Paris—immorality which is all the more dangerous because arrayed in the most attractive garbs."

The **Parallel** is a figure used to show the resemblance between two characters or writings, to show their conformity in essential points; as, the parallel between the Old and New Testament.

Paralipsis pretends to conceal or omit what is really suggested and enforced.

Example.—"*I will not call him a villain* because it would be unparliamentary."

Allusion is a figure by which some word or phrase in a sentence calls to mind, as if accidentally, another similar or analogous subject.

Example.—"I was surrounded with difficulties, and possessed no *clue* by which I could effect my escape."

Repetition seizes some emphatic word or phrase, and, to mark its importance, makes it occur frequently in the same sentence.

Example.—"He sang Darius, great and good,
By too severe a fate,
Fallen, fallen, fallen, fallen,
Fallen from his high estate and weltering in his blood."

Alliteration is the repetition of the same letter at the beginning of two or more words immediately succeeding each other.

Example.—"The lordly lion leaves his lonely lair."

Euphemism is a softened mode of speech for what would be disagreeable or offensive if told in the plainest language.

Example.—Cushi did not say to David, "Absalom is killed;" but, "*May all the enemies of the king be as that young man.*"

Onomatopœia is the formation of words in such a manner that their sound will suggest the sense; as, *buzz, hiss, roar.*

Example.—"On the ear
Drops the light *drip* of the suspended oar."

PROSODY.

Dr. Blair says that the best definition of **Poetry** is this: "Poetry is the language of passion, or of enlivened imagination, formed most commonly into regular numbers." Poetry is older than prose. Poems and songs are the first objects that make their appearance in all nations. During the infancy of Poetry all its different kinds were mingled in the same composition; but in the progress of society poems assumed their different regular forms.

Prosody is that part of Grammar which treats of the quantity of syllables, of feet, and the modes in which they are combined in verse.

Versification.

Versification is the art of arranging words into lines of corresponding length so as to produce harmony by the regular alternation of syllables differing in quantity. *Verse* is therefore language so arranged in lines that syllables of certain length may occur at certain intervals.

Verse is the form in which poetry generally appears. Poetry is distinguished from prose not only by this form, but by its containing more figures, as well as peculiar words and expressions.

There are two kinds of verse, *Rhyme* and *Blank Verse.*

Rhyme is that kind of verse in which there is a correspondence of sound in the last syllables of two or more lines; as:

"True wit is nature to advantage *dress'd,*
What oft was thought, but ne'er so well *express'd.*"

Blank Verse is metrical language without rhyme; as:

"Shall we serve Heaven
With less respect than we do minister
To our gross selves?"

Quantity.

By the **Quantity** of a syllable is meant the time required for its utterance. According to this time, syllables are distinguished as *Long* and *Short.* One long syllable is equivalent to two short ones.

A long syllable may be denoted by a short horizontal line placed over its vowel; a short syllable, by a curve.

In the case of monosyllables, nouns, adjectives, verbs, adverbs and interjections are for the most part long; articles are always short; prepositious and conjunctions are generally short; pronouns are long when emphasized; when not, short.

Poetic Feet.

A **Foot** is two or more syllables constituting a portion of a line.

A **Line of Poetry** consists of successive combinations of feet.

The most important feet in English verse are as follows:

The **Iambus**, a short syllable and a long . . . ˘ ¯ sĕvēre.
The **Trochee**, a long syllable and a short . . . ¯ ˘ trēmbling.
The **Spondee**, two long syllables . . . . ¯ ¯ cōld winds.
The **Pyrrhic**, two short syllables . . . . ˘ ˘ wil|dĕrnĕss.
The **Anapest**, two short and a long . . . . ˘ ˘ ¯ bărricāde.
The **Dactyl**, a long and two short . . . . ¯ ˘ ˘ tĕndĕrly.
The **Amphibrach**, a short, a long and a short . ˘ ¯ ˘ trēmĕndoŭs.
The **Amphimacer**, a long, short and a long ¯ ˘ ¯ sāddlē-bāgs.

In addition to these there are the *Molosse*, of three long syllables; the *Tribrach*, of three short; the *Bacchy*, a short syllable and two long ones; the *Antibacchy*, or *Hypobacchy*, two long syllables and a short one.

The four principal kinds of verse or poetic measure are the *Iambus*, *Trochee*, *Anapest* and *Dactyl*.

When a line is wholly composed of any of these four feet, it is called *Pure*. The remaining feet never form whole lines by themselves, but are sometimes interspersed with other feet. A line into which different feet enter is called *Mixed*.

Metre.

By **Metres** are meant the different systems according to which verses or lines are formed. They are named from the feet employed and their number.

Metres in which the iambus prevails are called *Iambic;* those in which the trochee prevails, *Trochaic;* the anapest, *Anapestic;* the dactyl, *Dactylic*.

Distinguished by the number of feet in a line, the varieties of metre are as follows: *Monometer*, which consists of one foot; *Dimeter*, of two feet; *Trimeter*, of three; *Tetrameter*, of four; *Pentameter*, of five; *Hexameter*, of six; *Heptameter*, of seven; *Octometer*, of eight.

Some metres, besides a certain number of complete feet, contain a syllable over at the end of the line. Such metres are called *Hypercatalectic*, or *Hypermeter*. When a syllable is wanting the verse is said to be *catalectic*; when the measure is exact the line is *acatalectic*.

Scanning, or **Scansion**, is the process of dividing a line into the feet of which it is composed.

Stanza -- Long, Short and Common Metre.

A **Stanza** is the combination of several lines in poetry, forming a distinct division of the poem; as:

"The curfew tolls the knell of parting day,
The lowing herd winds slowly o'er the lea,
The ploughman homeward plods his weary way,
And leaves the world to darkness and to me."

A **Verse** is but a single line of a stanza—a certain number of long and short syllables, metrically disposed.

"The curfew tolls the knell of parting day."

Long Metre.

The long, short and common metres are known by the number of feet or syllables found in them. Long metre stanzas contain in each line four iambic feet; as:

"Through every age, eternal God,
Thou art our rest, our safe abode:
High was thy throne ere heaven was made,
Or earth, thy humble footstool, laid."

Short Metre.

Short metre stanzas contain three lines of six syllables and one of eight syllables—the third line being the longest and containing four iambic feet; as:

"Sweet is the time of Spring,
When nature's charms appear;
The birds with ceaseless pleasure sing
And hail the opening year."

Common Metre.

Iambic verse of seven feet, divided into two lines, the first containing four and the latter three feet, makes what is known as common metre; as:

"When all thy mercies, O my God!
My rising soul surveys,
Transported with the view, I'm lost
In wonder, love and praise."

Iambic Verse.

In Iambic verse, the stress is laid on the even syllables, and the odd ones are short. It consists of the following measures:

Measure 1st. Iambic of Eight Feet, or Octometer.

"O āll | yĕ pēo|-plĕ, clāp | yōur hands, | ānd with | trĭŭm|phānt vōic|-ĕs sing;
Nō fōrce | thĕ might|-y pōw'r | withstānds | ōf Gōd | thĕ ŭ|-nivĕrs|-āl King."

Each couplet of this verse is now commonly reduced to, or exchanged for, a simple stanza of four tetrameter lines; thus:

"The hour | is come | —the cher|-ish'd hour,
When, from | the bus|-y world | set free,
I seek | at length | my lone|-ly bower,
And muse | in si|-lent thought | on thee."

Measure 2nd. Iambic of Seven Feet, or Heptameter.

"Thĕ Lōrd | dēscĕnd|-ĕd frōm | ābōve | ānd bōw'd the hēav|-ĕns high."

Modern poets have divided this kind of verse into alternate lines of four and of three feet; thus:

"O blind | to each | indŭl|-gĕnt āim
Of pōw'r | sŭprēme|-ly wise,
Who fan|-cy hap'piness | in aught
The hand | of Heav'n | denies!"

Measure 3rd. Iambic of Six Feet, or Hexameter.

"Thy rēalm | fōrĕv|-ĕr lāsts, | thy ŏwn | Mĕssī|-āh rēigns."

This is the *Alexandrine;* it is seldom used except to complete a stanza in an ode, or to close a period in heroic rhyme.

Measure 4th. Iambic of Five Feet, or Pentameter.

"Fōr prāise | tōo dēar|-ly lōv'd | ōr wārm|-ly sōught
Enfēe|-blēs āll | intēr|-nāl strength | ōf thought."

This is the regular English *heroic*. It is perhaps the only measure suitable for blank verse. The *Elegiac stanza* consists of four heroics rhyming alternately; thus:

"Enough | has Heav'n | indulg'd | of joy | below
To tempt | our tar|-riance in | this lov'd | retreat;
Enough | has Heav'n | ordain'd | of use|-ful woe,
To make | us lan|-guish for | a hap|-pier seat."

Measure 5th. Iambic of Four Feet, or Tetrameter.

"Thĕ jōys | ābōve | ăre ŭn|-dērstōod
And rēl|-ish'd ōn|-ly by | thĕ gōod."

Measure 6th. Iambic of Three Feet, or Trimeter.

"Blūe light|-nings singe | thĕ wāves,
And thŭn|-dĕr rēnds | thĕ rōck."

Measure 7th. Iambic of Two Feet, or Dimeter.

"Thēir lōve | ānd āwe
Sūpply | thē lāw."

Measure 8th. Iambic of One Feet, or Monometer.

"Hōw bright
Thē light."

In iambic verse, the first foot is often varied by introducing a trochee; as:

"Plānēts | ānd sūns | rūn lāw|-lēss thrōugh | thē sky."

By a synæresis of the two short syllables, or perhaps by mere substitution, an anapest may sometimes be employed for an iambus, or a dactyl for a trochee; as:

"*O'er man*|-*y a frōz*|-en, man|-*y a fl*|-*exy Alp*."

Trochaic Verse.

In Trochaic verse, the stress is laid on the odd syllables, and the even ones are short. *Single-rhymed Trochaic* omits the final short syllable, that it may end with a long one. This kind of verse is the same as iambic would be without the initial short syllable. Iambics and trochaics often occur in the same poem.

Measure 1st. Trochaic of Eight Feet, or Octometer.

"Once up|-on a | midnight | dreary, | while I | pondered, | weak and | weary,
Over | mānу ā | quaint and | cūrĭous | volume | of for|-gotten | lore,
While I | nodded, | nearly | napping, | sudden|-ly there | came a | tapping,
As of | some one | gently | rapping, | rapping | at my | chamber | door."

Measure 2nd. Trochaic of Seven Feet, or Heptameter.

"Hasten, | Lord, to | rescue | me, and | set me | safe from | trouble;
Shame thou | those who | seek my | soul, re|-ward their | mischief | double."

SINGLE RHYME.

"Night and | morning | were at | meeting | over | Water|-loo:
Cocks had | sung their | *earliest* | greeting; | faint and | low they | crew."

Measure 3rd. Trochaic of Six Feet, or Hexameter.

"On ā | mōuntāin | strētch'd bē|-nēath ā | hōary | wīllōw,
Lay a | shepherd | swain, and | view'd the | rolling | billow."

SINGLE RHYME.

"Lonely | in the | forest, | subtle | from his | birth,
Lived a | necro|-mancer, | wondrous | son of | earth."

Measure 4th. Trochaic of Five Feet, or Pentameter.

"Vīrtūe's | brīght'nĭng | rāy shāll | bēam fōr|-ēvēr."

SINGLE RHYME.

"Idlē | āftēr | dĭnnēr, | in his | chāir,
Sat a | farmer, | ruddy, | fat and | fair."

Measure 5th. Trochaic of Four Feet, or Tetrameter.

"Roūnd ā | hōly | cālm dĭf|-fūsĭng,
Love of | peace and | lonely | musing."

SINGLE RHYME.

"Rēstlēss | mōrtāls | toĭl fōr | nāught,
Bliss in | vain from | earth is | sought."

Measure 6th. Trochaic of Three Feet, or Trimeter.

"Whēn oūr | heārts āre | mōurnĭng."

SINGLE RHYME.

"In thē | dāys of | ōld
Stories | plainly | told."

Measure 7th. Trochaic of Two Feet, or Dimeter.

"Fāncy | viēwĭng,
Joys en|-suing."

SINGLE RHYME.

"Tūmūlt | cēase,
Sink to | peace."

Measure 8th. Trochaic of One Foot, or Monometer.

"Chāngĭng,
Ranging."

Anapestic Verse.

In Anapestic verse the stress is laid on every third syllable. The first foot of an anapestic line may be an iambus.

Measure 1st. Anapestic of Four Feet, or Tetrameter.

"At thē clōse | ōf thē dāy, | whēn thē hām|-lēt is still,
And mor-|tals the sweet | of forget|-fulness prove."

HYPERMETER WITH DOUBLE RHYME.

"In a word, | so complete|-ly forestall'd | were the wish|-es,
Even har|-mony struck | from the noise | of the dish|-es."

HYPERMETER WITH TRIPLE RHYME.

"Lean Tom, | when I saw | him, last week, | on his *horse* | *awry*,
Threaten'd loud|-ly to turn | me to stone | with his *sor*|-*cery*."

Measure 2nd. Anapestic of Three Feet, or Trimeter.

"I ām mōn|-ārch ōf āll | I sūrvēy;
My right | there is none | to dispute."

Measure 3rd. Anapestic of Two Feet, or Dimeter.

"Whēn I lōok | ōn my bōys,
They renew | all my joys."

Measure 4th. Anapestic of One Foot, or Monometer.

"On thē lānd
Let me stand."

Dactylic Verse.

In the pure Dactylic verse, the stress is laid on the first syllable of each successive three; that is, on the first, the fourth, the seventh, the tenth syllable, etc. Full dactylic generally forms triple rhyme. When one of the final short syllables is omitted the rhyme is double; when both, single. Dactylic with single rhyme is the same as anapestic would be without its initial short syllables. Dactylic measure is rather uncommon, and, when employed, is seldom perfectly regular.

Measure 1st. Dactylic of Eight Feet, or Octometer.

"Nĭmrōd thē | hūntēr wās | mīghty in | hūntĭng, ānd | fāmed ās thē | rūlēr ōf | cītĭes ōf | yōre;
Babel and | Erech, and | Accad, and | Calneh, from | Shinar's fair | region his | name afar | bore."

Measure 2nd. Dactylic of Seven Feet, or Heptameter.

"Out of the | kingdom of | Christ shall be | gathered, by | angels o'er | Satan vic|-torious,
All that of|-fendeth, that | lieth, that | faileth to | honor his | name ever | glorious."

Measure 3rd. Dactylic of Six Feet, or Hexameter.

"Time, thou art | ever in | motion, on | wheels of the | days, years and | ages;
Restless as | waves of the | ocean, when | Eurus or | Boreas | rages."

EXAMPLE WITHOUT RHYME.

"This is the | forest pri|-meval; but | where are the | hearts that be|-neath it
Leap'd like the | roe, when he | hears in the | woodland the | voice of the | huntsman?"

Measure 4th. Dactylic of Five Feet, or Pentameter.

"Now thou dost | welcome me, | welcome me | from the dark | sea,
Land of the | beautiful, | beautiful, | land of the | free."

Measure 5th. Dactylic of Four Feet, or Tetrameter.

"Boys will an|-ticipate, | lavish, and | dissipate
All that your | busy pate | hoarded with | care;
And, in their | foolishness, | passion and | mulishness,
Charge you with | churlishness, | spurning your | pray'r."

Measure 6th. Dactylic of Three Feet, or Trimeter.

"Ever sing | merrily, | merrily."

Measure 7th. Dactylic of Two Feet, or Dimeter.

"Free from sa|-tiety,
Care and anx|-iety,
Charms in va|-riety
Fall to his | share."

Measure 8th. Dactylic of One Foot, or Monometer.

"Fearfully,
Tearfully."

Cæsural Pause.

A slight pause should be made, in reading poetry, at the end of every line, though the sense may not require it. Often a pause is made in or near the middle of the line, especially when it is a long one. This brings out the meaning and improves the rhythm and effect. This pause is called the *cæsural pause* (i.e., *cutting*). The *final pause* is that occurring at the end of a line, and should not be distinctly marked when the sense does not require it.

Varieties of Poetry.

Poetry is of various kinds, such as *Epic, Dramatic, Lyric, Elegiac, Pastoral* and *Didactic*.

Epic Poetry is the most dignified. An epic poem is the recital of some illustrious enterprise in a poetical form. The action or subject of an epic poem must have three properties: it must be one; it must be great; it must be interesting. One action or enterprise must constitute its subject. Homer's *Iliad*, Virgil's *Æneid* and Milton's *Paradise Lost* are examples of epic poetry.

Didactic Poetry is written with the express intention to convey instruction and knowledge. It may be executed in different ways. The poet may treat some instructive subject in a regular form, or he may inveigh against particular vices or make some moral observations on human life and character.

Descriptive Poetry is indicated by its name. In general, description is introduced as an embellishment, not as the subject of a regular work.

Various Kinds of Poems.

There are many kinds of poems, of which the following are the chief designations:

A **Song** is a short poem to be sung or uttered with musical modulations.

A **Chant** is a song or words suited to musical tones without musical measure.

A **Hymn** is a song of praise, generally of a religious character.

An **Ode** is similar to a song or hymn. There are four denominations of these. 1. Odes addressed to God or composed on religious subjects. 2. Heroic odes, which concern the celebration of heroes and great actions. 3. Moral or philosophical odes, which refer chiefly to virtue, friendship and humanity. 4. Festive and amorous odes, which are calculated merely for amusement or pleasure.

A **Pæan** is a loud and joyous song, a song of triumph or rejoicing.

A **Ballad** is a popular song, narrative or sentimental, in simple, homely verses.

An **Epithalamium** is a nuptial song or poem in praise of the bride or bridegroom. The Song of Solomon in the Bible is a specimen.

An **Epigram** is a short poem treating only of one thing and ending with some lively, ingenious and natural thought.

A **Sonnet** is a poem of fourteen lines, two stanzas of four verses each and two of three each, and so arranged that in the first part the first line is made to rhyme with the fourth, fifth and eighth, the second rhyming with the third, sixth and seventh, while in the second part the first, third and fifth, and the second, fourth and sixth, also rhyme with each other.

A **Cantata** is a poem set to music, comprising choruses and solos and recitations, arranged in a somewhat dramatic manner.

A **Canzonet** is a short song in one, two or three parts.

A **Charade** may be in prose as well as poetry. It is based upon a word, the parts of which taken separately are significant of their meaning and that of the whole word.

An **Epitaph** is a brief descriptive sentence, in prose or verse, which is used on a tombstone.

A **Satire** is a composition, generally poetical, holding up vice or folly to reprobation; a keen or severe exposure of what in public or private morals deserves rebuke; an invective poem.

A **Parody** is a kind of poetical pleasantry in which what is written on a subject, generally serious, is altered and applied in a ludicrous vein.

A **Prologue** is a poem introductory to a play or discourse, generally spoken before the play begins.

An **Epilogue** is a short poem reviewing the main incidents of a play, spoken by the actor or actors at the termination of a performance.

An **Impromptu** is a verse or poetical composition written off-hand without previous study.

An **Acrostic** is a composition, usually in verse, in which the first or last letters of the lines, in their order, or of words, one in each line, form a name or sentence.

Poetical Peculiarities or License.

The following are some of the most striking peculiarities in which poets indulge and are indulged, and which are termed *poetic license*, which is a deviation from the strict rules of grammar.

1. They very often omit the articles; as:

"What dreadful pleasure! there to stand sublime
Like *shipwreck'd mariner on desert waste!*"

2. They abbreviate many nouns; as, *amaze* for *amazement; corse* for *corpse; fount* for *fountain.*

3. They employ several nouns that are not used in prose or are used but rarely; as, *benison, fane, ken, welkin.*

4. They introduce the noun *self* after another noun in the possessive case; as:

"Affliction's *self* deplores thy youthful doom."

5. They often place adjectives after their nouns; as:

"Come, nymph *demure*, with mantle *blue*."

6. They place before the verb nouns or other words that usually come after it; and after it, those that usually come before it; as:

"No jealousy *their dawn of love* o'ercast,
Nor blasted *were their wedded days* with strife."

7. They ascribe qualities to things to which they do not literally belong; as:

"Or *drowsy* tinklings lull the distant folds."

8. They use concrete terms to express abstract qualities (*i.e.*, adjectives for nouns); as:

"Meanwhile, whate'er of *beautiful* or *new*,
Sublime or *dreadful*, on earth, sea or sky."

9. They substitute quality for manner (*i.e.*, adjectives for adverbs); as:

"Thither *continual* pilgrims crowded still."

10. They form new compound epithets; as:

"In *world-rejoicing* state, it moves sublime."

11. They connect the comparative degree to the positive; as:

"*Near and more near* the billows rise."

12. They form many adjectives in *y* which are not in common use; as, a *gleamy* ray; *towery* height; *vasty* deep.

13. They employ adjectives of an abbreviated form; as, *drear* for *dreary; scant* for *scanty; ebon* for *ebony.*

14. They employ several adjectives that are not used in prose, or are used but seldom; as, *azure, darksome, rapt, sear.*

15. They employ personal pronouns and introduce their nouns afterwards; as:

"*It* curled not Tweed alone, that *breeze*."

16. They sometimes omit the relative of the nominative case; as:

"For is there aught in sleep *can charm* the wise?"

17. They omit the antecedent, or introduce it after the relative; as:

"*Who* never fasts, no banquet e'er enjoys."

18. They remove relative pronouns and other connections into the body of the clauses; as:

"Parts the fine locks, her graceful head *that* deck."

19. They make intransitive verbs transitive; as:

"—— A while he stands,
Gazing the inverted landscape, half afraid
To *meditate* the blue profound below."

20. They give to the imperative mood the first and the third person; as:

"*Turn we* a moment fancy's rapid flight."
"*Be* man's peculiar *work* his sole delight"

21. They employ *can, could* and *would* as principal verbs transitive; as:

"*What* for ourselves we *can*, is always ours."

22. They place the infinitive before the word on which it depends; as:

"When first thy sire *to send* on earth
Virtue, his darling child, *designed*."

23. They place the auxiliary after its principal; as:

"No longer *heed* the sunbeam bright
That plays on Carron's breast he *can*."

24. Before verbs they sometimes arbitrarily employ or omit prefixes; as, *begird, bedim,* for *gird, dim; lure, wail,* for *allure, bewail.*

25. They abbreviate verbs; as, *list* for *listen; ope* for *open.*

26. They employ several verbs that are not used in prose or are used but rarely; as, *astound, ween, trow.*

27. They sometimes imitate a Greek construction of the infinitive; as:

"For not *to have been dipp'd* in Lethe lake
Could save the son of Thetis *from to die*."

28. They employ the participles more frequently than prose writers, and in a construction somewhat peculiar; as:

"He came, and, standing in their midst, explained
The peace *rejected*, but the truce *obtained*."

29. They employ several adverbs that are not used in prose or are used but seldom; as, *haply, felly, rifely.*

30. They give to adverbs a peculiar location; as:

"Peeping from *forth* their alleys green."

31. They omit the introductory adverb *there;* as:

"Was naught around but images of rest."

32. They employ the conjunctions *or .... or* and *nor .... nor;* as:

"*Or* by the lazy Scheldt *or* wandering Po."

33. They often place prepositions and their adjuncts before the words on which they depend; as:

"*Against* your fame *with* fondness hate combines."

34. They sometimes place the preposition after its object; as:

"When beauty, *Eden's bowers within*."

35. They employ interjections more frequently than prose writers; as:

"Oh, let me gaze—of gazing there's no end.
Oh, let me think—Thought too is wilder'd here."

36. They employ antiquated words and modes of expression; as:

"*Withouten* that would come *an* heavier bale."
"He was *to weet*, a little roguish page,
Save sleep and play, who minded naught at all."

Vocal Culture and Gesture.

ELOCUTION.

HOW TO READ AND SPEAK CORRECTLY AND ELEGANTLY.

ELOCUTION does not consist, as many suppose, in merely learning to "recite pieces." It is the art of reading and speaking in the most correct and elegant manner. Before this can be attained it is necessary to articulate distinctly, to pronounce correctly, and to cultivate and strengthen the vocal organs.

The study of Elocution is one in which none can be pronounced perfect. As, in penmanship, a proficient may greatly improve by practice, and thousands are content to possess a handwriting next to illegible, instead of the neat, elegant hand of which they could easily become master, so thousands are satisfied with a harsh, disagreeable voice, a careless articulation, a monotonous expression and a repulsive manner, when by a proper training they might become fluent conversationalists, expressive readers and easy, if not eloquent, speakers. How many are content to work with one talent, when they could readily possess five! Among well educated persons of taste and refinement, how often do we find those to whom a knowledge of Elocution would be invaluable, because of its power to set forth their other accomplishments! The first tones of a speaker's voice always convey an idea, favorable or unfavorable, of the speaker himself; and, if the latter, much effort will be required of him to regain the estimation so unwittingly lost. What can be more satisfactory to its possessor than a rich, clear, melodious tone, a distinct, clean-cut articulation, a perfect command of the modulations, and a pleasing style both in voice and manner? All this is possible to any one who does not possess imperfect vocal organs and who will assiduously devote himself or herself to the study, believing it to be worthy of all efforts required to obtain a mastery of the art.

Elocution consists in the utterance or expression of thought.

Thought may be conveyed by *voice* or *gesture;* the latter reaching the hearer through the eye, the former through the ear.

Elocution may be divided into four branches, viz.: *Vocal Culture*, *Articulation*, *Expression*, or *Modulation*, and *Gesture*.

Vocal Culture.

Voice is produced by breath passing over the vocal chords, which are situated in the larynx, or upper portion of the windpipe.

The voice is the principal agent by which thought is conveyed, and is the basis of elocution.

Proper Breathing consists in taking in and giving out full inspirations of pure air in such a manner as not to interfere with speech. Correct breathing is an important factor in elocution, of more consequence than might be supposed. It should be so timed as not to interfere with speech. Breath should be taken only at pauses. Study at first never to destroy the connection of the thought by a pause for breathing purposes. In long sentences we should economize the breath as much as possible.

The culture of the voice should be a matter of necessity as well as the training of the mind or the development of the body. Frequent vigorous practice induces healthy activity; the voice is strengthened and rendered pure and resonant.

Articulation.

Articulation consists of a distinct and correct utterance of the elementary sounds. These sounds, forty-six in number, are formed by the organs of speech and are divided into *Vocal Sounds*, *Aspirate Sounds* and *Combined Sounds*.

The **Organs of Articulation** are the tongue, lips, palate and teeth, forming the *Lingual, Labial, Palatal* and *Dental* sounds, respectively. These organs, like valves, act either singly or together upon the stream of breath issuing from the larynx, and mould sound into speech. The mouth cavity and nasal cavity assist in modifying the tone of voice, giving it character and resonance.

Vocal Sounds are those having vocality.

Aspirate Sounds are those produced by the breath only.

Combined Sounds are those which are produced by both voice and breath.

Cognates are those sounds which occur in pairs, one vocalized and the other not, but both having the same articulate modification.

The **Trilled "R"** often adds much to the rendering of a passage; but, like the flourish, it may be misplaced. It should be used sparingly, seldom or never in the most serious discourse. In light descriptions and imitative modulations it may be employed, taking care, however, that it is never used unless immediately followed by a vowel sound.

Practice in articulation should be directed especially to those exercises in which **transitions** or **repetitions** of the same sound occur, as those will be quite difficult of mastery. See that both sounds are correctly and distinctly given, and that the organs of speech pass rapidly from one to the other.

Examples.—*S, s.* False *s*ounds.
sh, sh. Hu*sh*, *Ch*arlotte!
z, z. A*s* *z*ealous.
st, st. Severe*st* *st*orms.

Pronunciation.

The subject of Pronunciation should receive special attention by the learner, as a good voice and a distinct articulation tend to magnify any defect in utterance. In reading, foreign words are often found which are utterly unpronounceable to one not having at least an elementary knowledge of the language to which they belong. To pronounce such words according to English rules would in many cases be allowable; but this could not apply to *Goethe* and similar names. Clearly the only correct way is to approach as nearly as possible to the native pronunciation, except in words and names thoroughly anglicized. To pronounce Paris *Paree* would be pedantry.

Modulation.

Modulation consists in such a use of the voice as will convey the thought in the best manner. It has reference to *Quality, Melody, Form, Force, Time* and *Stress.* Modulation concerns the proper management of the voice in speech and treats of those changes that should be made in it to best express the sentiment.

QUALITY OF THE VOICE.

The **Quality** or kind of voice may be **Pure** or **Impure.** In ordinary conversation, reading or speaking, we should always use the Pure; but in expressing fear, anger, contempt, hatred, loathing, etc., we should employ a different quality of tone. When we feel the influence of these passions, we can easily make use of the proper form, but we should so control the voice that, in reading or speaking in the absence of passion, we can assume the tone best adapted to give expression to the sentiment.

The **Pure** quality is used in all cases when there is not a demand for the *Impure.* Great attention should be given to the cultivation of the conversational voice, until a habit of correct speech is acquired. This tone should always be full, rich and resonant. Of it there are two varieties, the *Simple* and *Orotund.*

The **Simple Pure** is used in ordinary conversation, reading and speaking.

Example.—And he said, A certain man had two sons; and the younger of them said to his father, Father, give me the portion of goods that falleth to me. And he divided unto them his living.

The **Orotund** is a full, round tone used in expressing grandeur, awe, sublimity, courage, reverence, veneration and other holy emotions.

Example.—Thou too, sail on, O Ship of State!
Sail on, O Union, strong and great!

The **Impure** quality of voice is used to express the action of the baser passions. It is also used in mimicry. The Impure qualities are the *Aspirate, Pectoral, Guttural* and *Falsetto.*

The **Aspirate** is the intense whisper, with little or no vocality. It is used to denote fear, secrecy, great caution, etc.

Example.—Soldiers, you are now within a few steps of the enemy's outposts.

The **Pectoral** is the deep tone of despair and anger. It is used to denote great solemnity and in describing the supernatural. It is orotund, very low in pitch, and is formed wholly in the throat.

Example.—Oh, I have passed a miserable night—
So full of dreadful dreams and ugly sights,
That, as I am a Christian, faithful man,
I would not spend another such a night,
Though 'twere to buy a world of happy days—
So full of dismal terror was the time.

The **Guttural** is a harsh throat-tone, lacking the orotund quality of the Pectoral—the language of hatred, intense anger, loathing and contempt.

Example.—I loathe ye in my bosom,
I scorn ye with mine eye,
And I'll taunt ye with my latest breath,
And fight ye till I die!

The **Falsetto** is a shrill, high-pitched tone used in expressing pain or terror. It is also employed in imitating the female voice.

Example.—When the lorn damsel, with a frantic screech
And cheeks as hueless as a brandy peach,
Cries, "*Help, kyind Heaven!*" and drops upon her knees
On the green—baize, beneath the—canvas—trees.

MELODY.

Melody in elocution is the effect produced upon the ear by the succession of vocal notes. It has reference to *Pitch, Slides* and *Cadence.*

Pitch.

Pitch relates to the elevation or depression of the tone. It may be *Natural, Low* or *High.*

Natural Pitch is used in all ordinary discourse.

Example.—
England's sun was slowly setting o'er the hills so far away,
Filling all the land with beauty at the close of one sad day.

Low Pitch is used in language serious, grave, sublime, grand, solemn, reverential and vehement.

Example.—Silence how dead, and darkness how profound;
No eye nor listening ear an object finds;
Creation sleeps.

High Pitch is used to express sentiment lively, joyous or impassioned. It is also characteristic of fear and grief.

Example.—"Oh, spare my child, my joy, my pride;
Oh, give me back my child!" she cried.

Slides.

Slides are inflections of the voice used to prevent monotony and to give better expression to the idea. They are *Ascending* and *Descending;* both are united in the *Circumflex.* In music the ascent and descent is made by distinct steps; but in speech the voice is bent more or less upward or downward. These changes are continually taking place, except in the *Monotone,* and they give *expression* to the voice.

Ascending Slides denote uncertainty, doubt, interrogation and incompleteness of idea.

Example.—Hast thou ever known the feeling
I have felt, when I have seen,
'Mid the tombs of aged heroes,
Memories of what hath been?

Descending Slides indicate positiveness, determination or a completion of the thought.

Example.—Come one, come all, this rock shall fly
From its firm base as soon as I!

The **Circumflex** is used to denote surprise or to express a secondary meaning which may be in harmony with or directly opposite to that conveyed by the words.

Example.—What! shear a *wolf,* a prowling *wolf?*



SELF-POSSESSION ON THE PLATFORM.

Cadence.

Cadence is the tone with which a sentence terminates. According to the sentiment, it may have the ascending or the descending slide, the rising or the falling circumflex, or it may vanish with no slide whatever. A sentence expressing a complete thought, having no modifying phrase or clause, and not affected by anything preceding or following it, should always terminate with a downward inflection; but when so modified it should close with a tone adapted to the connection or meaning. The reader should study variety and avoid uniformity in closing sentences.

FORM.

Form of voice may be *Natural, Effusive, Expulsive* or *Explosive.*

The **Natural** is that ordinarily used in conversation.

Example.—While a single white cloud to its haven of rest,
On the white wing of peace floated off in the west.

The **Effusive** is a very light, gentle form usually characterized by a swell. It is used in expressing that which is beautiful, tranquil or pathetic. It is characteristic of lofty sentiment not requiring vigorous expression.

Example.—How beautiful she is! how fair
She lies within those arms that press
Her form with many a soft caress
Of tenderness and watchful care.

The **Expulsive** is a forcible utterance expressive of determination and intensity of feeling.

Example.—Up, all, and shout for Rudiger—
Defiance unto Death!

The **Explosive** is used in vehement language and in powerful description. It usually manifests itself in the bursting of the voice on a single word.

Example.—
"Halt!"—the dust-brown rank stood fast;
"Fire!"—out blazed the rifle blast.

FORCE.

Force or power of the voice is of three kinds, *Natural, Heavy* and *Gentle.*

Natural Force is that most commonly used in speaking or reading.

Example.—
We are two travellers, Roger and I.
Roger's my dog—come here, you scamp!
Jump for the gentleman—mind your eye!
Over the table—look out for the lamp!

Heavy Force is used in grand description and in conveying any idea of power.

Example.—Bell never yet was hung
Between whose lips there swung
So grand a tongue.

Gentle Force is used in tender and pathetic description, and in all cases where a subdued form is necessary to correctly express the sentiment.

Example.—Noiselessly as the daylight
Comes when the night is done,
And the crimson streak on ocean's cheek
Grows into the great sun.

TIME.

Time in Elocution has reference to *Quantity, Rate* and *Pause.*

Quantity.

Quantity is the amount of time given to a word. It may be *Natural, Long* or *Short.*

Natural Quantity is that usually given to words in unemotional language.

Example.—There is one accomplishment, in particular, which I would earnestly recommend to you. Cultivate assiduously the ability to read well.

Long Quantity is used in expressing that which is grand, sublime, gloomy or humble.

Example.—O thou Eternal One! whose presence bright
All space doth occupy, all motion guide.

Short Quantity is used to express sentiment light, joyous, gay and brisk. It also expresses haste, fear, command, indignation, etc.

Example.—
The year is going, let him go;
Ring out the false, ring in the true.

Rate.

Rate is the degree of rapidity or slowness with which several successive words are uttered. It may be *Natural, Slow* or *Fast.*

Natural Rate is that which a person naturally uses in reading or speaking.

Example.—
O good painter, tell me true,
Has your hand the cunning to draw
Shapes of things that you never saw?

Slow Rate may denote horror and awe; it should be used in language serious, sublime and pathetic.

Example.—
Meanwhile the shapeless iron mass
Came moving o'er the wave,
As gloomy as a passing hearse,
As silent as the grave.

Fast Rate is used to express sentiment lively, joyous, impassioned and vehement.

Example.—
Hurrah! the foes are moving! Hark to the mingled din
Of fife and steed, and trump and drum, and roaring culverin!

Pause.

Pause is the suspension of the voice. *Poetic* and *Oratorical Pauses* express emotion. *Rhetorical Pauses* are those demanded by the sense and structure of a sentence. *Grammatical Pauses* are those indicated by the usual marks of punctuation, and *Prosodical Pauses* are those used only in verse. But in this connection it is best to make three divisions, viz.: *Natural Pause, Long Pause* and *Short Pause.*

Natural Pause is used in unimpassioned language and ordinary description.

Example.—Have you heard the tale of the Aloe plant,
Away in the sunny clime?
By humble growth of a hundred years
It reaches its blooming time.

Long Pause usually accompanies Slow Rate or a change of sentiment, and marks a suspension of the sense.

Example.—Pause a moment. I heard a footstep. Listen now. I heard it again. But it is going from us. It sounds fainter—still fainter. It is gone.

Short Pause accompanies Fast Rate, and is characteristic of haste, fear, etc.

Example.—John, be quick! Get some water! Throw the powder overboard! It cannot be reached! Jump into the boat, then! Shove off! There goes the powder—thank Heaven, we are safe!



THE AWKWARD SPEAKER.

STRESS.

Stress has much to do with the power, beauty and general effect of a sentence. It is that finishing, polishing touch which causes the thought to stand out in relief—throwing it vividly upon the background, with its profile well defined, its lights and shadows harmoniously blended—rendering it complete, beautiful and symmetrical.

There are six distinct kinds of Stress, viz.: *Initial, Final, Median, Compound, Thorough* and *Tremulous.*

Initial Stress is an explosive force on the first part of a syllable or word. It is characteristic of lively, joyous description.

Example.—
I come from haunts of coot and hern;
I make a sudden sally,
And sparkle out among the fern,
To bicker down a valley.

The **Final Stress** is an explosive force on the latter part of a syllable or word. It is used in expressing defiance, determination, or intensity of feeling or purpose.

Example.—A breath of submission we *breathe* not;
The sword we have drawn we will *sheathe* not.

Median Stress, or the **Swell,** characteristic of the Orotund Quality and Effusive Form, is most marked in the sublime, but it is found in all classes of literature, sometimes occurring on a single word and again continually through an entire sentence.

Example.—Roll on, thou deep and dark blue ocean, roll!

Compound Stress is a union of the Initial and Final in one word. It is indicative of surprise, irony and determination.

Example.—*Gone* to be *married! Gone* to swear a *peace!*
Shall *Lewis* have *Blanche,* and *Blanche* these *provinces?*

Thorough Stress is an abrupt, heavy force, used in command, fearlessness and braggadocio.

Example.—Blaze, with your serried columns!
I will not bend the knee!
The shackles ne'er again shall bind
The arm which now is free.

Tremulous or **Intermittent Stress** is used in fear, joy and laughter, in the broken voice of sorrow, and in imitation of the feeble voice of age.

Example.—Ho, why dost thou shiver and shake, Gaffer Gray,
And why does thy nose look so blue?
"'Tis the weather is cold, 'tis I've grown very old,
And my doublet is not very new, well-a-day."

Emphasis.

"Emphasis," it has been said, "is in speech what coloring is in painting. It admits of all possible degrees, and must, to indicate a particular degree of distinction, be more or less intense, according to the groundwork or current melody of the discourse." It consists of any peculiarity of utterance which will call special attention to a particular word or words in a sentence. Thus it will be seen that emphasis may be of force, stress, quality, pitch or rate. No definite rule can be given for the use of emphasis. It is so subtile, its shadings so delicate, that it can never be cabled to inflexible rules. But in general we should emphasize:

1. Words, phrases or clauses that are particularly *significant*.
2. Words, phrases or clauses that *contrast*.
3. Anything *repeated* for the sake of emphasis.
4. A *succession* of objects or ideas.

Word Individuality.

The "royal road" to success in reading lies in a true conception of the spirit of the piece and a faithful delineation of the author's meaning. Endeavor to grasp the ideas, make them a part of yourself and clothe your hearers with them. Another element of power lies in *playing upon* words and giving them their full individual expression. For instance, the word *firm* should usually be spoken in a firm tone of voice, *strong* in a strong tone, *light* in a light tone, *grand* in a manner conveying an idea of grandeur.

Word Individuality. *Expressive Intonation*, *Imitative Modulation* and *Sound to Sense* are the terms used to express the act of playing upon words, sounding the syllables or intoning the vowels in such a way as to more fully bring out the meaning of the word by its sound. *Old, sweet, long, gay, cold, deep, roar, whisper, fierce, wild, growl, titter, gush, burst, dash*—these and similar words may be rendered infinitely more expressive by giving each word its own peculiar individual character.

The following table of derivatives indicates the peculiar character of words:

St denotes firmness or strength; as, *stand, stay, stout, stop, stamp*, etc.

Str indicates violent force or energy; as, *strive, stress, strength, strife*, etc.

Thr indicates forcible motion; as, *throw, throb, thrust, threaten, thrill*, etc.

Gl indicates smoothness or silent motion; as, *glib, glide, glow*, etc.

Wr denotes obliquity or distortion; as, *wry, wrest, wrestle, wring, wrath, wrangle*, etc.

Sw implies silent agitation or lateral motion; as, *sway, sweep, swerve, swing*, etc.

Sl denotes gentle fall or less observable motion; as, *sly, slide, slip, slit, slack, sling*, etc.

Sp indicates dissipation or expansion; as, *spread, sprout, sprinkle, split, spoil, spring*, etc.

—ash indicates something acting nimbly or sharply; as, *crash, dash, rash, flash, lash, splash*, etc.

—ush denotes something acting more obtusely and dully; as, *crush, brush, hush, gush, blush*, etc.

Analysis and Grouping.

In reading it is necessary first to analyze the thought, to decide in the mind what portions are most prominent, and these should receive greatest emphasis. The subordinate thoughts should be properly grouped together and expressed in such a manner as will clearly show them to be subordinate. To use a figure of speech, let the more important parts stand in the foreground, giving them intensest light; the auxiliary thoughts may repose in the shadows of the background. In general the subject, predicate, object and connectives of a sentence should receive emphatic force. Give the same degree of force to words having a close grammatic connection, but separated from each other in the sentence. The intervening portions should be read parenthetically.

Transition.

Transition is the art of changing easily, rapidly and completely from one modulation or form of voice to another. It should be carefully practiced.

Climax.

It has been previously stated that a succession of objects or ideas should receive emphasis; that is, each of the series should be made more emphatic than the one immediately preceding. This gives a constantly increasing emphatic scale. The extreme point of the scale is called the **Climax.** There the vocal efforts should reach their culmination, giving great strength to the sentence.

Repose.

Repose is the sublime emblem of infinite power. It is reserve force that is immeasurable. He who by violent exertion shows that he has reached his limit loses that greater conception that we may have formed regarding his powers. Where Climax is employed in speech, in order to convey the greatest possible idea of power it is necessary to make the concluding portion of the sentence with that repose which indicates unlimited reserve strength. It has been well said, "The highest power is mastery, and the highest mastery is self-mastery, and of self-mastery repose is the emblem."

Impersonation.

In **Impersonation** the reader or speaker puts himself in the place of another, using the tone and style required by the assumed character. This, however, should not be resorted to when the beauty or sublimity of thought contained in a passage would be weakened thereby, as an assumed form always detracts from the *ideas* by directing our attention to the *manner*. But there are many times when personation really adds to the beauty and effectiveness of the rendering. The judgment of the reader must decide when it should be employed, and in what particular cases it may be omitted. When impersonating the voice may be changed, as well as the general manner. A heavy or light voice, fast or slow rate, low or high pitch will often be a sufficient change. *Old age* requires a feeble or cracked voice, higher pitch, slower rate, gentler force, a greater use of the inflections, and an apparent toothlessness easily secured by retracting the lower jaw and drawing the underlip as far as possible over the teeth. *Children's voices* are imitated by light force, many rising and falling slides, using great expression. Let the throat be contracted that the voice may appear to be formed in the front part of the mouth. In imitating the *voices of women* the reader should employ greater or heavier force, as required.

Dialogue Reading.

In dialogue reading several impersonated voices may occur, varying one from another by changes of force, pitch, rate or quality. As a *general rule,* the direction of the eyes and head should change with each transition of character. When only two speakers are represented, the whole body may change position, but when several appear a slight change only is required. In representing two characters the gaze is alternated left and right, but the descriptive portions (those not spoken by either of the characters) should always be given front. Let changes of position and voice be sudden and decided, especially so when one speaker is interrupted by another.

GESTURE.

Elocution may be divided into two parts: that which is *heard,* and that which is *seen.* The former is called **Voice;** the latter, **Gesture.** Both are important and indispensable to its proper study. The manner may be so out of harmony that it entirely contradicts the words, and an idea is conveyed directly opposite to that intended. It is important, then, that we study manner as well as matter. A pleasing style of delivery adds much to the effectiveness of a production, and in this Gesture plays an important part. It is absolutely essential to the perfect success of vocal delivery that it be accompanied by a manner that will not provoke criticism, nor in any way draw the hearer's attention from the thought uttered. It should rather *aid* that thought by conveying to the eye what the voice sends to the ear. Gesture should always be an assistant, never a hindrance, as it certainly is when not properly used. Those who naturally employ many gestures should learn how to correctly use them; those who use few should cultivate the use of more by making themselves familiar with the laws that govern intelligent gesticulation. *Double Gestures* have the same significance as single gestures. They are used for variety and greater effect and force. In speaking, do not employ one hand exclusively, but occasionally use the other to avoid sameness.

Rules Governing Gesture.

Gesture is that part of elocution which appeals to the eye. It relates to *Position* and *Movements.*

POSITION OF THE BODY.

The position of the body should be in harmony with the character of the thought. Vigorous expression requires a firm posture; beauty of sentiment, a graceful attitude. The position should be changed, not too often, as quietly and with as few movements as possible. The *arms,* when not in use, should hang easily at the sides, and *one foot* should be slightly in advance, the *head* being held naturally erect. The speaker should always take his position near the front of the stage, to be better seen and heard. *In reading,* always stand or sit erect, with lungs well inflated.

MOVEMENTS.

Movements of the body are necessary to give character to the delivery, but they must be natural, graceful and appropriate.

The Head.

The **Head** should maintain an easy position and allow the eyes to move deliberately over the audience. Do not stare into vacancy while before a company, but fix your gaze upon the individuals composing the assemblage. Avoid an excessive use of the head, both in reading and speaking. In reading, the eyes should be raised from the book as much as possible. Practice will give facility in reading long sentences with a single glance at the book. The *expression of the face* should reflect the character of the thought.

The **Hands** in gesture should be used easily and gracefully. Frequent practice before a mirror will be advantageous in securing freedom and grace of movement. The hands may be *Supine, Prone, Vertical, Pointing* and *Clenched.*

The SUPINE HAND lies easily opened, with the palm upward. It is a common form of gesture.

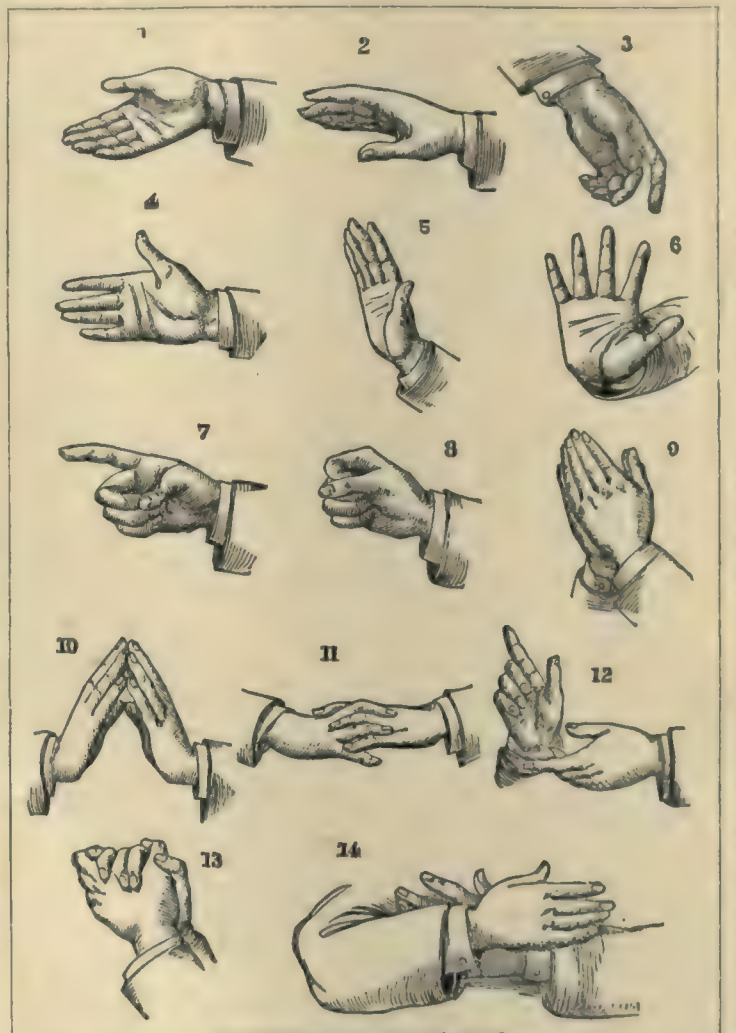
The PRONE HAND is opened with the palm downward. It is used to denote negative assertion, superposition, etc.

The VERTICAL HAND is opened, with the palm outward from the speaker. It is used in warding off and in denoting a limit.

The POINTING HAND, forefinger extended, is used in designating or pointing out any particular thing or place. *Ordinarily,* the hand is loosely opened, but, when the gesture is *emphatic,* it is tightly closed.

The CLENCHED HAND denotes intense action of the will or passions.

The accompanying illustration, with explanations appended, shows the principal forms of hand gestures.



POSITIONS OF THE HANDS.

1. Simple affirmation. 2. Emphatic declaration. 3. Apathy or prostration. 4. Energetic appeal. 5. Negation or denial. 6. Violent repulsion. 7. Indexing or cautioning. 8. Determination or anger. 9. Supplication. 10. Gentle entreaty. 11. Carelessness. 12. Argumentation. 13. Earnest entreaty. 14. Resignation.

The Arms.

The **Arms** should be used naturally and with decision. In forcible utterance they move in straight lines; in graceful expression they move in curves, but even in the curves they should show that they are servants sent to perform certain duties, and that they are guided in every motion by a power beyond themselves. Sometimes, in familiar gesture, the forearm only is used, but ordinarily the arm moves freely from the shoulder.

Hand and Arm Gestures.

Hand and Arm Gestures are made in four general directions, viz.: *Front, Oblique, Lateral* and *Backward.* Each of these is subdivided into *Horizontal, Descending* and *Ascending.*

FRONT GESTURES are used to designate or to illustrate that which is near to us, whether it be an object, a thought or a feeling. In addressing an object, real or ideal, we suppose it to be placed in the direction of the Front gesture.

OBLIQUE GESTURES are less emphatic and more general in their application than the Front Gestures. They relate to things indefinitely.

LATERAL GESTURES denote expansion, extreme distance, breadth, or the placing of persons, objects or ideas in contrast with one another.

BACKWARD GESTURES indicate things remote, obscure or hidden.

HORIZONTAL GESTURES are employed in general allusions; they indicate a level or equality and belong to the realm of the Intellect.

DESCENDING GESTURES denote inferiority or inequality, and, when emphatic, they show determination and purpose. They belong to the Will.

ASCENDING GESTURES denote superiority, greatness, an unfolding or lifting up figuratively or literally. They belong to the Imagination.

Make all gestures with decision. When the gesture is completed, let the arm fall slowly to the side. *Never allow the arms to swing.*

THE THREE FORMS OF SPEECH.

Conversation. This is the simplest form of speech, and it is the most natural. In conversation we are ourselves; we use no forced, unnatural style of utterance. Always endeavor in

conversation to express the best thoughts in the best manner, avoiding those subjects not of general interest to the listeners, using the best language at command.

Reading. In conversation our ideas are evolved from our own minds. In reading the thought may be the same and the manner the same, though the phraseology differ. In reading *our own* composition, we are too liable to fall into a reading tone—an unnatural mode of expression. This droning process causes the hearer to lose a large portion of the thought which he would receive were the reading *intelligent* instead of *mechanical*. In *emotional* reading, he receives all the thought, and it is intensified in its conveyance to him. When you desire to read *well*, be sure to previously familiarize yourself with the words, arrangement of paragraphs and logical connection of all the thoughts contained in the piece of reading. Always hold your book or paper in such a way that you can readily take in a whole line at once. Allow the letters to be about fourteen inches from the eye, not directly below, nor horizontal with the eye, but half-way between these two positions. Look off the book as much as possible.

Public Speaking. This is conversation magnified. The same forms of voice are employed as in conversation; the difference lies in a symmetrical enlargement of the sentences. In this, do not *distort*, but preserve the form in its simplicity and you will have it in its greatest purity and power. Apply all rules of elocution and rhetoric to your conversation, and you will have the form best suited to public address. Always make a marked distinction between the conversational (or explanatory) and the oratorical and dramatic portions. Studiously avoid anything like an oratorical style in simple descriptions or narratives. Never appear in public without thorough preparation, and be sure that this is succeeded by a period of rest, that you may be in your best condition. Tone the voice just before beginning your vocal effort. In your approach, do not appear hurried; but let your manner be graceful and your bearing dignified. This will insure respect. Put yourself at ease by a strong mental effort and begin deliberately, gradually warming up with your subject. Never acquire the useless habit of drinking water during a vocal performance. Water will not supply the natural moisture of the vocal organs, and if they are properly used there is no necessity for artificial moistening. Pay special attention to the articulation, and let it always be distinct. Deliver the sounds sharply and correctly, and your audience will appreciate your efforts, though they may not themselves know wherein lies the charm of the voice to which they listen.

DRAMATIC ACTION.

Dramatic action differs from oratory, though it employs the same vocal expression. The orator is always himself, in his best condition; the actor acts an assumed character which would often not be consistent with the dignity of the orator. In oratory we may borrow certain gestures (termed *Special Gestures*) from the art of acting; hence it is necessary for us to be informed as to the significance and proper method of using these gestures.

In acting, the moderate step may become a stride. Actors are permitted to move in a lateral direction, while the orator can only advance and recede from his audience. The actor may also stamp, start or kneel. These demonstrations are forbidden the orator.

An erect position is the only one suitable to the dignity of the orator. In acting, grief depresses, and pride throws the body backward.

The head is raised in arrogance, inclined in languor or indifference, and hung in shame. The head may take the following positions: *Inclined, Erect, Assenting, Denying, Shaking, Tossing, Aside.*

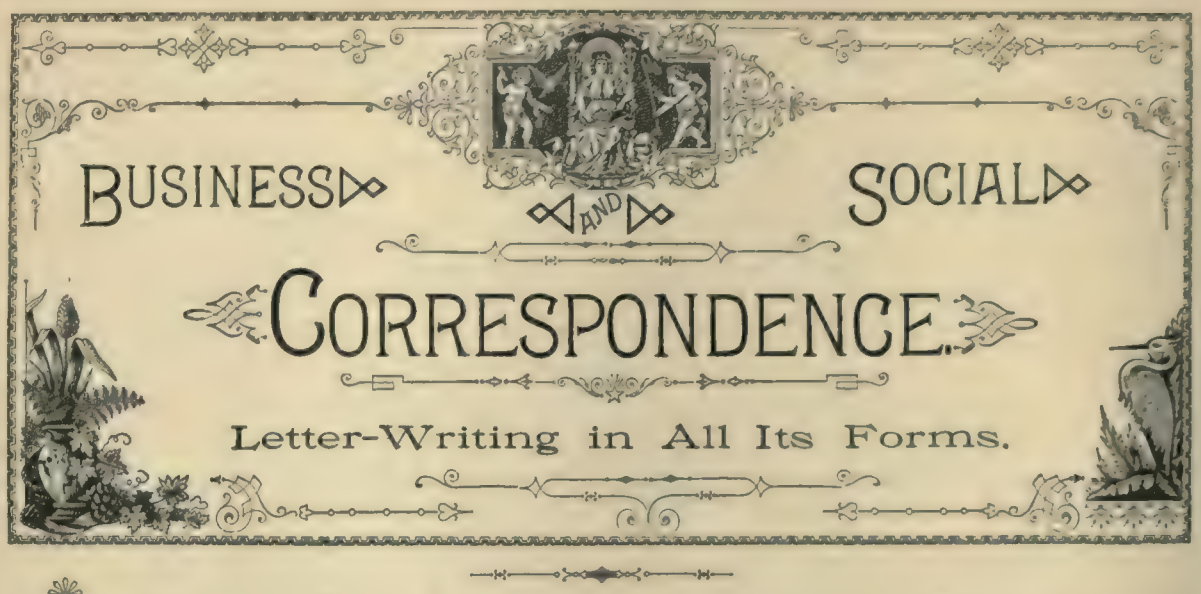
Considered in reference to the direction of the eyes, it may be *Averted, Downward, Upward, Around* or on *Vacancy.*

The countenance may take the expression of anger, shame, contempt, pride, despair, terror or any other violent passion. In oratory this is not admissible.

The hand may take the following positions: *Hollow, Holding* or *Grasping* (according to the degree of energy), *Applied* (palms together), *Clasped, Crossed* (upon the breast), *Folded* (fingers of right hand between the thumb and forefinger of the left), *Enclosed* (back of the one within the palm of the other), *Touching* (points of the thumb and fingers of each hand brought into contact), *Wringing* (clasped hand, lowered, and separated at wrists, but without fingers disengaged), *Enumerating* (first finger of the right hand laid successively upon first and other fingers of the left).

The arms may be *Folded* (crossed and enclosing each other), *Akimbo* (one or both hands on hips, elbows extended at one or both sides), *Reposed* (elbows nearly resting on the hips, one hand holding the wrist of the other—a female position).

In designating the manner of motion, Gesture may be considered as *Noting* (the hand being drawn back and raised, then advanced and by gentle stroke depressed), *Projecting* (arm thrust forward in the direction in which the hand may be pointing), *Retracting* (the arm drawn back preparatory to projecting or to avoid an object), *Waving* (fingers pointing downward, the hand flung smartly upward), the *Flourish* (in which the hand describes a circle or part of a circle above the head), the *Sweep* (the hand making a curved movement, descending from the opposite shoulder and rising high above the head; or the reverse, changing in the first case from the Supine to the Vertical, and in the second from Vertical to Supine; sometimes a Double Sweep is used, combining both movements), *Beckoning* (with whole hand or simply the forefinger), *Repressing* (the opposite of Beckoning), *Advancing* (the hand moved slowly forward and upward to the horizontal, the whole body aiding the action, and a step in advance being taken), *Springing* (the hand, having nearly arrived at the limit of the gesture, springs suddenly up to it by a quick movement of the wrist), *Striking* (hand and arm), *Bending* (preparation for Striking), *Recoiling* (a return to position after Striking), *Throwing* (arm flung outward in the direction of a person addressed), *Clinching* (clenched hand raised threateningly), *Collecting* (arm sweeps inward toward the body), *Shaking* (tremulous motion given to arm and hand), *Pressing* (the hand being laid upon any part, the elbow is raised and the fingers contracted), *Rejecting* (vertical hand pushed toward the object, head averted).



LETTER-WRITING in its true excellence can scarcely be regarded as an art. Instruction may, no doubt, be imparted through the medium of rules, but those applicable to the subject are few and, at the same time, of the simplest character. The following observations will, it is hoped, be found of some practical use to young persons, and assist them in avoiding errors and in acquiring a degree of proficiency in epistolary composition.

It should always be borne in mind that letter-writing is but "speaking by the pen." The first endeavor of a writer should, therefore, be to express himself as easily and naturally as in conversation, though with more method and conciseness.

STYLE.

The style should be determined in some measure by the nature of the subject, but in a still greater degree by the relative positions of the writer and the person addressed. On important subjects, the composition is expected to be forcible and impressive, on lighter subjects, easy and vivacious; in condolence, tender and sympathetic; in congratulation, lively and joyous. To superiors, it should be respectful; to inferiors, courteous; to friends, familiar; and to relations, affectionate. An old writer justly remarks: "Much has been said on the epistolary style, as if any one style could be appropriated to the great variety of subjects which are treated of in letters. Ease, it is true, should distinguish familiar letters, written on the common affairs of life, because the mind is usually at ease while they are composed. But even in these, topics incidentally arise which require elevated expression and an inverted construction. Not to raise the style on these occasions is to write unnaturally; for nature teaches us to express animated emotions of every kind in animated language. The dependent writes unnaturally to a superior in the style of familiarity; the suppliant writes unnaturally if he rejects the figures dictated by distress. Conversation admits of every style but the poetic; and what are letters but written conversations?"

Arrangement of Ideas.

The purport of every letter should be well considered before its commencement—not only with a view to the attainment of a thorough clearness of expression, which is of primary importance, but likewise that the principal points to be discussed may be prominently brought forward, while those of a trivial nature are slightly mentioned. It requires, however, not only a certain amount of tact, but some quickness of perception, to avoid the stiffness and formality which are incident to the arrangement of the subject, and which are great defects in letter-writing.

Ornamentation.

A redundancy of ideas and of language is a common fault with those capable of writing with facility. As a rule, therefore, all striving after effect or attempt at ornamentation should be avoided; and as the chief charm of a letter is its originality, writers should not avail themselves either of hackneyed

expressions or of ideas borrowed from others. An exhibition of epistolary talent is far less likely to gratify a correspondent than an easy, free and faithful expression of the sentiments of the writer; and by thus expressing himself he will also naturally avoid any excess of flattery or exaggerated professions of regard. so peculiarly objectionable in a letter, and at variance with all delicacy of taste. At the same time, a strict adherence to the natural expression of the thoughts will gradually introduce a degree of ease, fluency and force which may be carried to a high degree of perfection.

Long Sentences.

Unpracticed persons will at first find it desirable to make their sentences as short as possible, that they may have them completely under control. Long sentences, even when well constructed, frequently occasion some degree of obscurity, and are less forcible than short ones. Parentheses, though sometimes necessary, likewise tend to obscure the meaning of a writer, besides weakening the effect of sentences; they should therefore be avoided as much as possible.

COMPOSITION OF LETTERS.

As regards the composition of letters, it is generally desirable to commence with some introductory remarks, not as a mere formality, but for the purpose of conciliating attention to the main subject of communication, which may otherwise strike too abruptly upon the mind of the reader. The introduction should be followed by the development of the topics for discussion, according to the importance attaching to each; and the conclusion should, when occasion requires, be devoted to the confirmation or summing up of what has been previously stated, and to expressions of regard or affection.

Tautology.

Tautology, or the repetition of the same words, should be guarded against, as forming a blemish of a striking character. In this effort, the continual need of words of like meaning will soon render a writer familiar with a variety of synonyms; and the possession of a copious vocabulary will conduce greatly to the general freedom of the composition.

Postscripts.

Postscripts are generally indicative of thoughtlessness, and should be avoided, except when necessary for the purpose of mentioning some circumstance that has occurred after a letter has been written. To convey any assurance of regard or affection by means of a postscript is a great impropriety, as appearing to imply that the sentiments are so slightly impressed upon the mind of the writer as to be almost forgotten. There are special circumstances, however, which may render an expression of feeling in a postscript even more impressive than in the body of the letter; but such cases are exceptional, and must be left to the judgment of the practiced writer.

Quotations.

Quotations should not be introduced too frequently, for, though a short and appropriate one, occasionally given, is both effective and elegant, yet to give them prominence in a letter appears pedantic and affected. The common use of French or proverbial phrases also offends against good taste.

Underlinings.

Underlinings and interlineations are objectionable. A well constructed sentence will seldom require the emphasis to be marked by underlining any of the words, and a frequent repetition of the practice is not complimentary to the understanding of a correspondent. Any occasion for interlineations may usually be superseded by the exercise of care in writing and by a little forethought.

Grammatical Correctness.

It is scarcely necessary to observe that correctness in grammar and spelling is of the highest importance, and that no elegance of diction compensates for imperfection in these respects, but rather serves to render more glaring errors so essentially indicative of a defective education. When the rules of grammar are understood, the constant attention to apply them will soon render them familiar, and, at the same time, tend to promote readiness of expression. Abbreviations in spelling, even though warranted by general practice, have a certain appearance of laxity, and detract much from a good style.

Contractions and Abbreviations.

Be careful and do not use the character & except in the title of firms; as, Brown & Cox, A. T. Scott & Co. As a general thing, characters are to be avoided. The economy of time and space secured by their use hardly compensates for the mutilated appearance of the words and the liability to error involved. *Don't, can't, isn't,* and other contractions of the same class, are allowable in familiar letters, and where familiar conversation is quoted, but not in any graver style.

Figures of Arithmetic.

Numbers, except dates and sums of money, should be spelled in full, unless exceeding three words in length. Never write, "I saw 5 birds," "We have 8 cats."

Capitals.

Capitals should be cautiously used in letter-writing. We should certainly not confine the writer of a letter to the rigid rules observed in printed literature, because an important word may sometimes be graced with a capital which in a printed form would begin with a small letter. But an indiscriminate, or even frequent, use of capitals may be taken as a proof of the ignorance of the writer.

Punctuation.

Proper punctuation is essential to a correct and regular mode of expression. The best general rule to follow is to place the points where a pause would occur in speaking. Dashes should only be used to mark a sudden change in sentiment or in place of parentheses. Correct punctuation not only gives elegance to a composition, but it makes its meaning clear, enforces attention to those words or passages which most require it, and, to a great extent, prevents a misunderstanding or wilful misconstruction of the writer's meaning.

Repetition.

Avoid repetitions. They always offend the judicious ear, and are seldom proper, except when they enforce any particular meaning or explain it more fully.

Form of a Letter.

A letter usually consists of six parts, viz.: the date, complimentary address, body of the letter, complimentary closing, signature, superscription.

Position of the Parts of a Letter.

The DATE is written near the upper right-hand corner of the sheet.

The COMPLIMENTARY ADDRESS is begun on the line next beneath, one inch from the left side of the sheet.

The BODY OF THE LETTER is commenced nearly under the last letter of the complimentary address.

The COMPLIMENTARY CLOSING is begun on the line next beneath the body of the letter, one-half of the distance from the left to the right side of the page.

The centre of the SIGNATURE should be under the last letter of the complimentary closing.

The NAME and ADDRESS of the person written to should come on the line beneath the signature at the left of the sheet.

[*Date.*]

Charleston, S. C., July 11th, 1883.

[*Complimentary address.*]

Sir,

[*Body of Letter.*]

I take the liberty of recommending to you my friend Mr. Edward Granger, of this city, bearer of the present. He intends staying only a week in New York; but should he have need of any information, I would be very much obliged to you to furnish it to him, and will be equally thankful for any other services that you may have occasion to render him. Relying, in this respect, upon your usual kindness,

[*Complimentary closing.*]

I am, dear Sir,

Yours sincerely,

[*Signature.*]

Henry Gladson.

[*Name.*]

To Mr. Charles Newland,

[*Address.*]

Maiden Lane, New York.

The Date.

The date is a matter of great importance, particularly in business letters. You cannot be too careful, therefore, to state it in full and correctly. Unless you write from a large city like New York, Philadelphia, Brooklyn, New Orleans, Cincinnati, Boston, Chicago or St. Louis, you should always mention the State, and generally the county, as there are many post-offices of the same name in the United States. If you write from a street, mention the name and number of the street, or the name of the hotel. With English writers, it is customary to put the day before the month in dating a letter; as, 18th September, instead of September 18th. Custom favors the latter in this country.

Proper Modes of Address.

The styles of address are varied to suit the occasion, and the terms of compliment at the close of a letter are always considered as mere courtesy or form; they should not, therefore, on any occasion be avoided. To a person with whom a writer is not well acquainted he should say "Sir," or "Madam," concluding with "Your obedient servant," or "Yours respectfully;" to those with whom he is tolerably well acquainted, "Dear Sir," or "Dear Madam," with "Yours faithfully;" and to those with whom he is on familiar

terms, "My dear Sir," or "My dear Madam," with "Yours truly," "Yours very truly," "Yours sincerely," or "Yours very sincerely." To two or more ladies, married or single, the form of address is "Ladies." To a young unmarried lady, the salutation is usually omitted to avoid the repetition of "Miss," the address alone being used as an introduction. The complimentary address is generally written at the top of a business letter.

Model Headings.

Mr. William C. Jones,
Washington, D. C.

DEAR SIR:
Your letter of the 12th—

Mrs. Maria Jansen,
Philadelphia.

DEAR MADAM:
I send you herewith—

Miss Edith Blaine,
Chicago:
You will receive by express—

Messrs. Harper Bros.,
Broadway,
New York.

DEAR SIRS:
Yours of the 1st inst.—

Messrs. Harper Bros.,
Broadway,
New York.

DEAR SIRS: Yours of the 26th ult. was—

Messrs. Smith, Beggs & Co.,
Chestnut St.,
Philadelphia.

GENTLEMEN:
We have none of the goods—

Messrs. Smith, Beggs & Co.,
Chestnut St.,
Philadelphia.

GENTLEMEN: We have the—

Miss Lucy Hooper,
Paris, Ill.:
We have received your—

My dear James:
Your note of the 10th—

My dear Cousin:
I have been so busy—

My dear Son:
You have not written—

Materials.

The names of the different kinds of papers, and when used, are as follows:

LEGAL-CAP is used in writing all legal documents, articles of agreement, etc. The characteristic of legal-cap is a red line running from top to bottom of the sheet.

BILL-PAPER is used for bills, etc., and is ruled expressly for the purpose, and usually bears the name and business of the person using it at the top.

FOOLSCAP is used in writing notes, orders, receipts, compositions, petitions, subscription headings, etc.

LETTER-PAPER is used for the ordinary letter.

NOTE and BILLET PAPER is used for notes of invitation, parents' excuses for children to teachers, and all brief communications. It is the smallest sheet-paper made.

COMMERCIAL NOTE is used for business letters, and is generally narrower than ordinary paper.

Titles.

Titles in America are either social, scholastic or official.

Social titles are Mr. (Mister, formerly Master), Sir, Esq. (Esquire), Gentlemen (only in the plural), Master (for boys only), Mrs. (Mistress), Madam, Miss, and Ladies. Esq. is properly used only to persons of some prominence.

Scholastic titles are those conferred by universities or other institutions of learning. They may follow or precede the name, as Prof. W. M. Jones; W. M. Jones, A.M.; Dr. W. M. Jones; W. M. Jones, M.D.

Official titles include titles applied to persons in the civil, military or naval service.

The following list illustrates the various titles used for the different ranks among individuals either in the complimentary address or superscription on the envelope:

To Royalty—To the King's Most Excellent Majesty.
To the Queen's Most Excellent Majesty.
To His Royal Highness the Prince of Wales.
To Her Royal Highness the Princess of Wales.
To His Royal Highness the Duke of Connaught.
To Her Royal Highness the Princess Beatrice.

To Nobility—To His Grace the Duke of Devonshire.
To Her Grace the Duchess of Devonshire.
To the Most Noble the Marquis of Salisbury.
To the Most Noble the Marchioness of Salisbury.
To the Right Honorable Earl of Carlisle.
To the Right Honorable the Countess of Carlisle.
To the Right Honorable Lord Viscount Palmerston.
To the Right Honorable the Viscountess Palmerston.
To the Honorable Baron Crandall.
To the Honorable the Baroness Crandall.

The younger sons of noblemen in England are addressed as Honorable; also members of Parliament and other persons

holding certain positions of honor and trust. The elder sons of noblemen take by courtesy the title next in rank below that of their fathers.

Baronets are addressed thus: Sir Walter Scott, Bart.; and Knights thus: Sir Morton Peto, Kt.

Clerical Titles.

The Pope—His Holiness Pope Leo XIII.

Cardinal—His Eminence, John, Cardinal McCloskey.

Archbishop—Most Rev. Peter R. Kenrick, D.D.

Bishop—Rt. Rev. P. J. Ryan, D.D.

Vicar-General—Very Rev. Henry Muehlsiepen.

Priest or Clergyman—Rev. James Farquhar.

——Rev. Dr. Amos Foley.

Titles Used in the United States.

His Excellency—The President of the United States, Governor of any State, Ministers to foreign countries.

Honorable—Vice-President of the United States, members of the Cabinet, members of Congress, heads of Departments, Assistant-Secretaries, Comptrollers and Auditors of the Treasury, Clerks of the Senate and House of Representatives, State Senators, Judges, Mayors of cities.

Miscellaneous Titles.

His Excellency and Mrs. R. B. Hayes.

Governor and Mrs. Thos. T. Crittenden.

Hon. and Mrs. James G. Blaine.

Rev. Dr. and Mrs. T. De Witt Talmage.

Professor and Mrs J. F. Crunden.

Mr. and Mrs. Henry Ames.

Drs. John M. and Chester H. Thorn.

Drs. Walter C. and Mary C. Williams.

Mr. W. T. and Mrs. Dr. E. C. James.

Rev. H. E. and Mrs. Dr. E. C. Howe.

Rev. Mrs. William Bass.

Rev. Mrs. W. H. Crow.

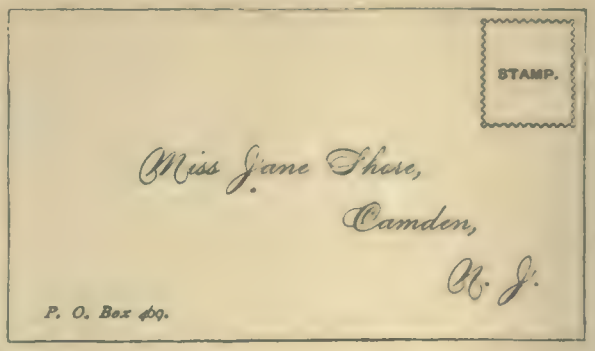
Rev. Jane H. Moon.

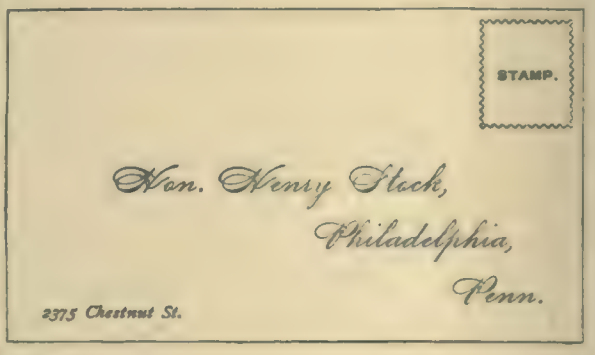
Rev. Miss Jane H. Moon.

The Envelope.

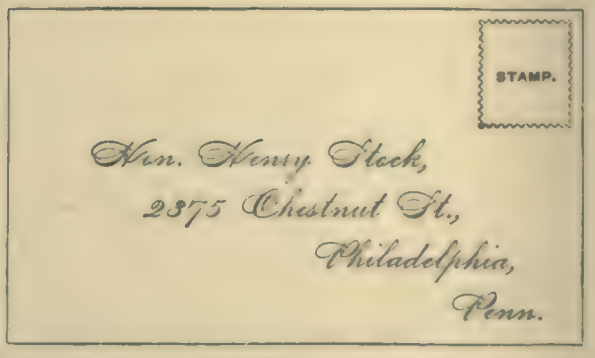
The superscription on the envelope should be written very plainly. It is fashionable to write it as near the right-hand under angle or corner of the envelope as convenient. The full name and title of the person addressed, with place of residence, written out fully, including town, county, State, and country, if it goes abroad.

The number of the post-office box, or the door number and the name of the street, or the name of the county, may stand at the lower left-hand corner.

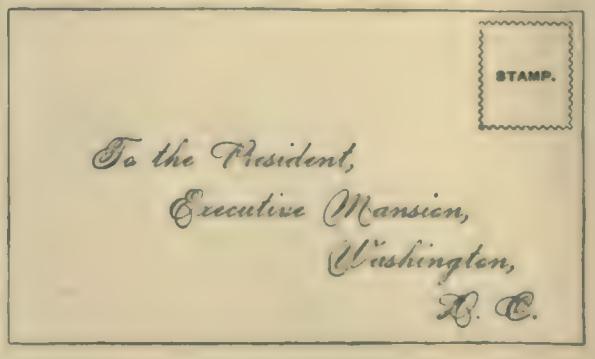




Or:



In writing to the President of the United States, he is addressed on the envelope thus:



The Governor of a State is thus addressed:

STAMP.

His Excellency,
Governor T. T. Crittenden,
Jefferson City,
Mo.

When a person's official designation is given in full it forms the next line below the name.

A letter of introduction should be addressed in this manner:

STAMP.

Mr. Charles Newland,
Maiden Lane,
New York.

Introducing
Mr. Edward Granger,
Of Charleston, S. C.

When a letter is sent by a friend the name of the bearer is written on the lower left-hand corner.

GENERAL HINTS.

Be sure you affix the proper stamp to every letter before you send it. A letter will not be forwarded unless it is prepaid at least one full rate.

In writing a letter the answer to which is of more benefit to yourself than the person to whom you write, enclose a postage stamp for the reply.

A letter of introduction or recommendation should never be sealed, as the bearer to whom it is given ought to know the contents.

As a rule, every letter, unless insulting in its character, requires an answer. To neglect to answer a letter when written to is as uncivil as to neglect to reply when spoken to.

In the reply, acknowledge first the receipt of the letter, mentioning its date, and afterwards consider all the points requiring attention.

In business and ceremonious letters do not write on both sides.

A person in mourning should never write a congratulatory letter on mourning paper.

Either ruled or plain paper may be used, but unruled or plain paper is more stylish, and is to be preferred.

Avoid all erasures or blots, even if compelled to rewrite your letter.

Letters of compliment should always be written in the third person.

Avoid writing with a pencil. Never write other than business letters on a half sheet of paper.

Owing to the almost universal use of gummed envelopes, the use of sealing-wax has become nearly obsolete, though it adds a much more refined appearance to a note than simply closing it with adhesive gum. A neat little seal of red wax for a gentleman, and of gold, blue, or other fancy color, for a lady, is elegant and appropriate.

The envelope should be adapted both in size and color to the paper.

The stamp should be placed on the upper right-hand corner of the face of the envelope. The stamp should be right end up, and the edges of the stamp should be parallel with the edges of the envelope, as putting a stamp upside down or awry indicates carelessness, and is disrespectful to the person to whom it is sent.



LETTERS OF BUSINESS.

THE characteristics of the commercial style are conciseness and perspicuity. With the exception of a few terms of compliment, scarcely a superfluous word should be used. It is, however, not at all necessary to sacrifice correctness of style or language. A careful simplicity and the clearness of expression necessary to convey the ideas to be imparted, combined with the rejection of all words not absolutely indispensable, while giving rise to a forcible style, form in themselves some of the chief essentials of true elegance.

Persons unpracticed in correspondence, before writing a letter of any length, should note down the several heads of the matter forming the subject of communication, so that the various points may be brought forward in proper consecutive order. If several subjects are to be alluded to, they should be kept perfectly distinct, as the proper division of a letter into paragraphs is of the utmost importance. A confusion of sentences not only looks extremely ill, but is very likely to lead to a misapprehension of the writer's meaning, and to result in delay or injury, or, at all events, to necessitate further correspondence.

In replying to a letter, each point should be taken up as it arises, and be discussed in a separate paragraph; and each paragraph should be so clear and unambiguous that its purport may in no way be doubted. All business letters should be answered the same day they are received. In all letters of business, it is customary to write the name and address on the first page, as otherwise, if the superscription were lost, it would not appear to whom the letter had been written. Business letters should always be written upon plain paper. To use gilt-edged or any other fancy paper for this purpose is accounted the extreme of vulgarity.

From a Young Man Commencing Business to a Wholesale House, with Order.

GREENVILLE, ILL., July 2, 1883.

Messrs. Gray & Wardwell, New York.

GENTLEMEN: Having commenced business here on my own account, with every prospect of success, I shall be glad to open an account with your house, doubting not it will be to our mutual advantage. With this view, I note below an order, which I shall thank you to execute with the least possible delay, and on your best terms as to goods and prices. I beg to refer you to my late employer, Henry Weatherby, of Chicago, who will satisfy you as to my integrity and trustworthiness; but, as this is a first transaction, on your forwarding me an invoice of the goods, deducting discount for cash, I shall remit a sight draft on a bank in your city for the amount per return mail. Requesting your usual prompt attention, I am, gentlemen,

Yours respectfully,

JOHN HARDAWAY.

Reply from Wholesale House, with Invoice.

NEW YORK, July 8th, 1883.

DEAR SIR: Agreeably to your esteemed order of the 2nd inst., we have the pleasure to enclose invoice of goods amounting to $——, subject to five per cent discount for prompt cash.

We may mention that, from the opinion entertained of you by Mr. Weatherby, we have no hesitation in opening the account, and at once placing you on our best terms. The parcels have been dispatched this day per Adams Express, and we trust they will arrive safely and receive your approval. We believe the goods will bear a favorable comparison with those of any house in the trade, and desire that you should satisfy yourself as to value and quantities before remitting settlement. We are, dear Sir,

Yours respectfully,

GRAY & WARDWELL.

To Mr. John Hardaway, Greenville, Ill.

From Country Merchant Complaining of Quality of his Goods.

WAUKESHA, WIS., Jan. 14, '83.

DEAR SIR: Since I entered into business transactions with you, it has been my invariable course to act with integrity and honor, expecting the same conduct in return. Until lately, indeed, I had no cause to complain; but the goods I had last week from you, as well as the parcel just delivered, are so inferior in quality that I hesitate to offer them to any of my customers. As I can have much better value elsewhere, and I do not sell job goods on any account, I am reluctantly obliged to advise you that, unless you can send me others in their stead, I must withdraw my correspondence altogether. Meantime, both parcels are laid aside awaiting your orders. An immediate answer will oblige

Yours respectfully,

ABRAM MATTHEWS.

To Mr. James Santee, New York.

To a Publisher's Firm, Proposing to Open an Account.

CINCINNATI, Jan. 1st, 1883.

GENTLEMEN: As our business is rapidly on the increase, we are desirous of opening an account with your house, and shall feel obliged by your transmitting us a trade list of your publications, as well as some of your general catalogues. Our usual terms of settlement are as follows: (here state them). Should they be agreeable to your house, the favor of an early attention to our request will oblige,

Gentlemen,

Your obedient servants,

BENSON & Co.

To Messrs. Scribner & Co., New York.

LETTERS OF RECOMMENDATION.

OUR examples under this head will be useful as affording specimens of an appropriate style to be adopted in answering advertisements or in applying for situations. On such occasions, while the proper deference due to an employer should be exhibited, it is desirable to preserve that tone of self-respect which, the employes should bear in mind, has a much better effect than any subservient expressions.

From a Youth Applying for a Junior Clerkship.

ALBANY, Jan. 16th, 1880.

GENTLEMEN: Understanding by your advertisement in the *Herald* of the 15th inst. that you are requiring the services of a junior clerk, I beg respectfully to offer myself as a candidate for the appointment. I am fifteen years of age, and from my attainments in various branches of education, I believe myself qualified for the duties required.

I may mention that I am not altogether unacquainted with book-keeping and accounts, having for some months past assisted my father, Mr. Phineas Kincaid, lumber merchant, in the counting-house department of his business.

Should you entertain my application, I beg to refer you to Mr. Willis Bancker, of Walnut St., Philadelphia, and Mr. Paul Parker, of Chambers St., New York, who will have pleasure in testifying to my character and abilities. I am, gentlemen,

Your most obedient servant,

PHILIP KINCAID.

To Messrs. Cole & Taylor, Trenton, N. Y.

Reply of the Firm.

TRENTON, N. J., July 19th, 1882.

SIR: Having made inquiries of Mr. Parker, one of the references mentioned in your letter of the 16th inst., we are satisfied with his recommendation. Before making an arrangement, however, we should desire a personal interview, and should, therefore, be glad if you could make it convenient to call at our counting-house on Saturday forenoon at eleven o'clock.

Yours,

COLE & TAYLOR.

To. Mr. Philip Kincaid, Albany, N. Y.

Application for Situation as Housekeeper.

NO. 20 CANAL ST., NEW YORK.

BOX 301, POST-OFFICE: I beg respectfully to offer myself as a candidate for the situation advertised as above in to-day's *Herald*. I am at present, and have been for five years, housekeeper in the family of Mr. Hamilton, 2314 Madison Avenue, to whom I can confidently refer you as to my character and qualifications for the duties required. I am also permitted to refer you to John Houseman, Esq., Troy, N. Y., with whom I served two years in the same capacity previous to my engagement with Mr. Hamilton. My age is thirty-two years, and I am unmarried.

I am your most obedient servant,

ELIZABETH ELLIS.

From a Nursery Governess in Answer to an Advertisement.

GERMANTOWN, PA., March 4th, 1882.

MADAM: Understanding that you have a vacancy for a nursery governess for your three daughters, I beg to state that I have occupied that position for three years in the house of Mr. Anthony, and only left in consequence of the family going to reside in the West. I am well acquainted with the usual routine of an English education, and have sufficient knowledge of French, drawing and music to teach the first rudiments, and attend to the practicing in the absence of the teacher, which, I presume, is all you would require. I enclose some testimonials which, I venture to hope, will satisfy you as to my character and competency for the office. Should you honor me with your confidence, I assure you that neither kindness nor exertion shall be wanting to do justice to your children, without exercising undue severity or unkindness. Awaiting the favor of your reply,

I remain, Madam,

Your obedient servant,

HELEN HOLMES.

To Mrs. Jeremiah Borie, Philadelphia.

Application to a Clergyman for a Testimonial.

BEEKER ST., BOSTON, May 4, '82.

REVEREND SIR: Being a candidate for the appointment of matron in the New York Hospital, I beg to solicit the favor of a testimonial from you as to my general conduct, which you have had opportunities of observing in your capacity of director and visitor of the institution where I, at present, fill a responsible place. And should you deem me worthy of the more important situation referred to, anything you can do to forward my interests will be ever gratefully acknowledged by, reverend Sir,

Your dutiful and humble servant,

ELIZA HAZLETON.

To the Rev. John Snowden,
Rittenhouse Square, Boston.

Application for a Situation as Gardener.

NO. 237 CANAL ST., NEW YORK, June 3d, '83.

SIR: Understanding that you want a gardener, I beg to offer myself as a candidate to fill the vacancy. I have had constant experience both in nursery grounds and private gardens, and am thoroughly acquainted with the management of the green-house and hot-house.

I inclose some testimonials from gentlemen with whom I have lived, which, I hope, will prove satisfactory. The last situation I filled was with Mr. Ogden, who will, I believe, speak favorably of my character and fitness for the office. I am a married man, with a family of three children, and my age is thirty-five. Should you entertain my application, a letter directed to the above address will meet with prompt attention from,

Sir, your most obedient servant,

JAMES O'REILLY.

To Henry Houghton, Esq., Troy, N. Y.

LETTERS OF COURTESY, FRIENDSHIP AND AFFECTION.

AN old writer says: "We all delight to talk of ourselves; and it is only in letters, in writing to a friend, that we can enjoy that conversation, not only without reproach or interruption, but with the highest propriety and mutual satisfaction. In such letters, above all things, a natural and lucid expression of the sentiments of the writer is necessary. Friends expect our thoughts and feelings, not a letter filled with unmeaning verbosity; and though, where excellence is aimed at, considerable attention must be paid to the disposition of the words and sentences, it must not be at the sacrifice of the energy resulting from a free expression of the sentiments. Let the thoughts first be mastered, and the words be suggested by the sentiments, without the slightest affectation of manner. The ease of diction, so essential, may, in a measure, be acquired by familiarity with the best English authors, and an approach thus made to that perfection which may be said to be attained only by the happy union of ease and freshness with the dignity of true friendship."

It is a common saying with young friends, as an excuse for remissness in their correspondence, that they have nothing to write about; but surely, between friends, there must be a similarity of taste on some subjects, and a discussion of their sentiments and opinions on any one of them, in a course of correspondence, would be acceptable and also valuable, as tending to their mutual improvement. But this division of our subject comprises also the letters passing between relatives and others united by ties of affection—excepting only the correspondence of lovers, and of parents with their children, which form distinct chapters. In such letters, the heart speaks and the imagination is most eloquent. Letters of courtesy should be written on the best paper. For those to gentlemen the paper should be neither figured nor tinted.

To a Lady Friend, with a Ring.

CINCINNATI, October 4th, 1882.

MY DEAR MISS ATKINS: As a ring was adopted by the ancients as a symbol of eternity, I venture to request your acceptance of the accompanying little circlet as an emblem of esteem and affection on my part, which, I am sure, will be perpetual. Please receive it in the spirit in which it is tendered. Place it on your finger, and let me hope that as often as you look at it you will be pleasantly reminded of one who has experienced much happiness in your society, and who is now, as heretofore,

Your old and sincere friend,

HENRY LEWIS.

The Reply, Returning the Present.

WEST THIRTIETH ST., NEW YORK, Oct. 10th, 1882.

DEAR SIR: I hope you will not be offended at the liberty I have taken in returning your kind present, as I make it a rule never to receive anything in this way from gentlemen. I assure you that, while my sentiments of respect and esteem are as cordial as ever, I cannot allow myself, even on the score of friendship, to infringe on a hitherto inviolate principle; and I, therefore, trust the rejection of your valuable and kindly-meant gift will not be thought unfeeling or impolite. True good-will and esteem, indeed, are superior to such external evidences, and I am satisfied your generous mind will not for a moment doubt the sincerity of those feelings I continue to cherish toward you.

I am, dear Sir, your faithful well-wisher,

LIZZIE ATKINS.

To Mr. Henry Lewis, Cincinnati, Ohio.

A Young Lady Congratulating an Aunt on Her Birthday.

RITTENHOUSE SQUARE, PHILADELPHIA,
January 10th, 1882.

MY DEAR AUNT: To-morrow will be the fiftieth anniversary of your natal day, and I should do injustice to my feelings were I to permit the occasion to pass without expressing my sincere congratulations and wishing you many happy returns of the day. Aside from the near tie of relationship which exists between us, I shall ever cherish with feelings of gratitude and affection the remembrance of the very many favors and kindnesses I have received at your hands. Consequently it is only natural I should feel a grateful interest in each return of this happy anniversary. Fortunate, indeed, shall I esteem myself if, at your age, I can review my past life with equal satisfaction, for, after all, there is no happiness so complete as that afforded by looking back upon a well-spent life. Birthdays are the milestones which mark the progress of the traveller along the difficult highway of life, and happy is the individual who can pass each one without a sigh of regret or a feeling of mistrust in the future. With my best wishes for your future happiness, I remain,

Your affectionate niece,

KITTY PINE.

To Mrs. Mary Page, Fifth Avenue, N. Y.

To a Friend, on Being Married.

NEW YORK, Jan. 4th, 1882.

MY DEAR PHIL: I believe there are certain stereotyped phrases in which it is customary to congratulate newly-married folks; but, utterly disregarding all rules and regulations in such cases made and provided, I wish you joy in the familiar words which our friendship warrants and my feelings suggest. If your married life is half as happy as I desire it to be, you will have good cause to be satisfied with your lot. Present my kind regards and compliments to your bride. Wishing you many happy returns of the anniversary of your wedding-day, I remain,

Your friend,

WALTER COOPER.

To Mr. Philip Brandon, Chicago, Ill.

UNIVERSITY OF CALIFORNIA

LETTERS OF FRIENDLY COUNSEL AND REMONSTRANCE.

PERHAPS no class of letters demand more delicate treatment than such as one friend sends to another with words of counsel or remonstrance, either in common emergencies or on subjects of general importance. We give a variety of examples. One is from the correspondence of Franklin, and is worthy of study as a model of the instructive class, when the writer is the acknowledged superior of his correspondent in knowledge and experience.

From Dr. Benjamin Franklin to a Young Lady.

MY DEAR FRIEND: I send you the books I mentioned to you last night. I beg you to accept them as a small mark of my esteem and friendship. They are written in the familiar, easy manner for which the French are so remarkable, and afford a good deal of philosophical and practical knowledge, unembarrassed with the dry mathematics used by more exact reasoners, but which are apt to discourage young beginners. I would advise you to read with a pen in your hand, and enter in a little book short hints of what you find that is curious or that may be useful, for this will be the best method of imprinting such particulars on your memory, where they will be ready either for practice on some future occasion, if they are matters of utility, or, at least, to adorn and improve your conversation, if they are rather points of curiosity. And as many of the scientific terms are such as you cannot have met with in your common reading, and may, therefore, be unacquainted with, I think it would be well to have a good dictionary at hand, to consult immediately when you meet with a word you do not comprehend the meaning of. This may at first seem troublesome and interrupting, but it is a trouble that will daily diminish, as you will daily find less and less occasion for your dictionary as you become more acquainted with the terms; and, in the meantime, you will read with more satisfaction, because with more understanding. When any point occurs on which you would be glad to have more information than your book affords you, I beg that you would not in the least apprehend that I should think it a trouble to receive and answer your questions. It will be a pleasure and no trouble. For though I may not be able, out of my own little stock of knowledge, to afford you what you require, I can easily direct you to the book where it may be found. Adieu, and believe me ever, my dear friend,

Yours affectionately,

B. FRANKLIN.

To a Friend who has Traduced You.

NO. 21 MADISON AV., NEW YORK,
October 12th, 1882.

SIR: I have it from good authority that you have spoken of me in most unfriendly terms to our mutual acquaintances. At first I could scarcely believe it, and hoped that there was some mistake; but the proofs of your misstatements and misrepresentations are too strong to be doubted. What could have been your motive for thus slandering me, I cannot conceive. As you know full well that there were no grounds for the disparaging assertions you have made, the least you can do is to repair the evil by disabusing the minds of those to whom you have traduced me. This I shall expect of you, and without delay.

Yours, etc.,

CHARLES SINGLETON.

To Sidney Delaney, Esq., Wall St., N. Y.

Answer to the Foregoing.

WALL ST., Oct. 13th, 1882.

DEAR SIR: I think the remarks to which you refer have been taken more seriously than they should have been by the parties who reported them to you. Still, I do not deny that, under the influence of vexation, for which I now believe there was not sufficient cause, I did speak of you in terms of which I am now ashamed. I therefore owe you an apology, and make it freely. Any false impressions concerning your character and conduct which may have been derived from my words, I will take care to remove by a full explanation. Hoping that this candid acknowledgment will satisfy you,

I remain, Sir,

Truly yours,

SIDNEY DELANEY.

To Charles Singleton, Esq., No. 21 Madison Av.

From an Aged Lady to her Niece.

"THE HIGHLANDS," Sept. 4th, '82.

DEAR NIECE: The sincere love and affection which I have for your indulgent father, and ever had for your virtuous mother when alive, together with the tender regard I have for your future happiness and welfare, have prevailed on me to inform you of what I have heard of your unguarded conduct, and the too great freedom you take with Mr. Martindale. You have been seen with him at the theatres, in the Central Park, and other public places. Don't imagine that I write this from a desire to find fault, but believe me, your familiarity with him gives me no small concern. His character is extremely bad, and he has acted in the most ungenerous manner to two or three young ladies of my acquaintance who entertained too favorable an opinion of his honor. It is possible, as he has an uncle of considerable fortune, that you may be tempted to imagine his addresses an offer to your advantage; but that is greatly to be questioned, for I have heard that he is deeply in debt, and also that he is privately engaged to a rich old widow at Flushing. Let me prevail on you, dear niece, to avoid his company; for, notwithstanding your purity of heart, your good name may be compromised by such open acts of imprudence. I have no other motive but an unaffected zeal for your interest and welfare, and I flatter myself you will not be offended with the liberty here taken by your sincere friend

And affectionate aunt,

SARAH GLASGOW.

The Young Lady's Answer.

ST. LUKE'S PLACE, N. Y., Sept. 5, '82.

DEAR AUNT: I received your letter, and when I consider your reasons for writing, thankfully acknowledge you my friend. It is true I have been at those public places you mention with Mr. Martindale, but was utterly ignorant of his true character. He did make me proposals of marriage, but I told him I would do nothing without my father's consent. He came to visit me this morning, when I told him that a regard for my reputation obliged me never to see him any more, nor even correspond with him by letter, and you may depend on my adhering to that resolution. In the meantime, I return you a thousand thanks for your friendly advice. I shall leave New York in about six weeks, and will call to see you after I have been at my father's.

I am, dear aunt, your affectionate niece,

To Mrs. Sarah Glasgow. BELLA BURNS.

LETTERS SOLICITING ADVICE OR FRIENDLY FAVORS.

LETTERS of this kind, although they do not relate to transactions which bear a commercial value, are generally connected with business and require prompt attention. Introductions, for example, are often of the highest value, and as such favors can always be reciprocated, they are seldom refused or neglected by men acquainted with the usages of society. Such letters may be written by persons having only a business acquaintance, or may pass between mutual friends.

Soliciting a Loan from an Intimate Friend.

BROAD ST., PHILADELPHIA, May 11, '83.

MY DEAR SIR: A disappointment in the receipt of some money due has exposed me to a temporary embarrassment. The sum which would extricate me from this painful difficulty is not large, as $400 would be amply sufficient to release me from my present pressure. I have so great an aversion to borrowing money from a professional lender that I prefer the course of soliciting the aid of some well-known friend. I have thought of several, but none with a greater degree of confidence than yourself. Can you grant me, then, the accommodation of the above sum without in any way intrenching on your own convenience? If you can, I believe I may rely on your readiness to do so; and you may in turn depend upon it being reimbursed with the strictest punctuality by the 5th of April. A speedy reply to this request will extremely oblige, my dear Sir,

Yours most sincerely,

HOWARD THOMAS.

To Mr. Lee Williams, 21 Pine St., Philadelphia.

In Answer to the Above, on Account of Incapability.

NO. 21 PINE ST., PHILADELPHIA, May 13, '83.

MY DEAR SIR: I truly regret that my circumstances will not permit me to oblige a friend so dear to me as yourself; but at present I am in great need of money, and last Friday I was compelled to borrow to meet a pressing obligation. I, therefore, do not have it within my power to comply with your request. Trusting that you may be more successful in some other quarter, and with feelings of regret at my own inability to render you a service which you might otherwise readily command, believe me to remain,

Ever your sincere friend,

LEE WILLIAMS.

To Howard Thomas, Esq., Broad St., Philadelphia.

Friendly Letter of Introduction.

CHICAGO, Feb. 4th, 1880.

MY DEAR SIR: This will introduce to you my esteemed friend Mr. Henry W. Bonsall, whom, I am sure, you will be happy to know. Any attention you may have it in your power to bestow during his visit to Boston will be gratefully reciprocated by

Your friend,

CHAUNCEY GARDENER.

To Raymond Howells, Esq., Boston.

Soliciting a Subscription for the Benefit of a Widow.

LOGAN SQUARE, PHILADELPHIA, April 4, '82.

MADAM: I venture to solicit your benevolent aid on behalf of an urgent and most deserving case. The widow of John Wood, a laborer on the Hudson River Railroad, who was killed by an accident on the line, has been left by his untimely end with a family of six helpless children. The two youngest are at present afflicted with a dangerous fever, and require their mother's sole care, thus preventing her from obtaining employment or doing anything for the support of those depending on her.

As Mrs. Wood is a respectable and well-behaved woman, and is very much averse to applying for ward assistance, a very moderate sum is being raised to relieve her immediate necessities, and, if possible, to establish her in a small shop as a means of future subsistence. Trusting you will excuse this intrusion, and that I may have the pleasure of adding your name to the accompanying subscription-list,

I am, Madam,

Your most obedient servant,

JANE HEADLEY.

To Mrs. Katherine Roosevelt,
Fifth Avenue, N. Y.

Answer to the Foregoing.

Mrs. Roosevelt has received Mrs. Headley's letter, and is happy in being able to assist with her mite so worthy an object, and is gratified in placing her name on the subscription-list for five dollars, which sum is herewith enclosed. Mrs. Headley will oblige by a note of acknowledgment.

FIFTH AVENUE, N. Y., April 5th, 1881.

From a Gentleman to his Friend, Requesting the Loan of a Book.

"INGLESIDE," Oct. 10th, 1883.

SIR: When last at your house you called my attention to a book entitled "The Origin of Species," which I remember as a work of so much interest that I feel much inclined to peruse it, and should esteem it a great favor if you would lend it to me. I will take great care of it and return it in a few days, as I have at present abundant leisure for reading.

I am, Sir,

Your obedient servant,

JOHN CARTER.

To Nathan Shewell, Esq., "The Oaks."

Affirmative Answer to the Foregoing.

"THE OAKS," Oct. 11th, 1883.

DEAR SIR: You are quite welcome to the volume you express a wish to see; but I must ask you to let me have it by the middle of next month, as I shall then have occasion to use it for some literary purposes.

Believe me, dear Sir,

Yours very truly,

NATHAN SHEWELL.

To John Carter, Esq., "Ingleside," N. Y.

LETTERS OF SYMPATHY AND CONDOLENCE.

LETTERS of this class are among the more important of those which friendship and affection dictate. Their composition should be more studied than ordinary letters of friendship. The most important rule is to avoid mere conventionalities. In the composition of such there must be no high-flown words or expressions, no straining after effect. If heart speaks not to heart in the simplest, most soothing language of nature, words will to the sufferer prove cold and unimpressive—worse than useless. Be it ever borne in mind that, to the afflicted, the mourner in spirit, "there is only one true source of consolation, that we shall meet those we love in another and a better world, where the wicked cease from troubling and the weary are at rest."

Courtesy requires that the letters of condolence to a friend, on the death of a relative, should be written on black-edged paper and sealed with black wax, even though you should have been unacquainted with the deceased.

To a Lady on the Death of Her Child.

CHICAGO, Jan. 11th, 1880.

MY DEAR HESTER: The painful news of the removal of your dear child has just reached me, and I hasten to express my affectionate sympathy with you under so severe an affliction.

Alas! how fresh in my memory is the recollection of the liveliness and innocence of the lovely departed! All that was mortal is changed now, and clouded forever; but how great is your comfort in the well-grounded assurance that the Good Shepherd, who "careth for his flock," has taken the gentle lamb into his own fold! Your child has gone to him who said, "Suffer little children to come unto me," and we know not how soon our hour may come. Oh, that we may all meet in that brighter and happier world, where sorrow and sin and suffering are alike unknown!

That a higher than human power may console and support you under this heavy stroke is the earnest prayer of,

My dear Hester,

Yours sincerely,

ARABELLA WINTERS.

To Mrs. Hester Appleby, Columbus, O.

Reply to the Foregoing.

COLUMBUS, O., Jan. 13th, 1880.

MY DEAR ARABELLA: It is indeed true, although yet we can scarcely believe it. A little while ago our darling child was regarded as the strong one of the family, overflowing with happy animal spirits—the fountain of joy in the house. Now her poor earthly garment is laid in the early grave, and her generous, loving, truthful spirit, with its mine of unwrought wealth, can be with us only by the eye of faith. Wonderful is this dispensation of a heavenly Father's chastening hand! Yet can we see many merciful preparations for it, the foremost being the dear child's own inner life; and through the trials of the past five or six weeks there have been mercies innumerable, tempering the wind to the shorn lamb. Our hope and prayer is that, though seen no longer, she may be a ministering angel in our home. "To do good and distribute" was her element when visibly present. It may be that her desire to bless those she so fondly loved may only have received a deeper and more inward power.

Believe me ever

Most truly yours,

HESTER APPLEBY.

To Mrs. Arabella Winters, Chicago, Ill.

On a Sudden Reverse of Fortune.

STAMFORD, CT., July 6th, 1880.

MY DEAR FRIEND: Hackneyed phrases of condolence never yet comforted a man in the hour of trouble, and I am not going to try their effect in your case. And yet, let me say, in heartfelt earnest, that I was deeply pained to hear of your sudden and unexpected reverse of fortune. Misfortune is very hard to bear when it falls upon one like a flash of lightning from a clear sky, without any warning. But do not be discouraged. When Senator Benton saw the work of many years consumed in ten minutes, he took the matter coolly, went to work again, and saw the damage repaired before his death. So, I hope, will you. There is no motto like "Try again" for those whom fate has stricken down. Besides, there are better things than wealth, even in this world, to say nothing of the next, where we shall neither buy nor sell. Cheer up, and believe me, as of old,

Your friend,

WILLIS GOODHELP.

To Mr. Harvey Brown, Boston, Mass.

To a Lady on the Death of Her Husband.

NEW YORK, December 12th, 1882.

MY DEAR MRS. JAMES: Although unwilling to intrude on the sacred privacy of grief until its first pangs have, in some measure, subsided, I participate so sincerely in your affliction that I cannot longer keep myself from writing. And yet, so weak and ineffectual is all human consolation, that I scarcely know how to express the deep sense I have of the heavy stroke under which you are prostrated. Yours is, indeed, a sad bereavement; but I doubt not, from your strong faith in Him who "doeth all things well," you will be sustained and comforted by his own consolations, which are "neither few nor small." The recollections of him who has so lately departed must be so full of painful regret, that I will not dwell on this dark side of the picture, but rather look to its brighter aspect, in the hope that he has gone to a happier sphere, and that what is loss to you is to him "unspeakable gain."

I add no more but my fervent prayer that you may be divinely comforted in your sore trial, and be roused from your grief by claims of duty to those whose welfare demands your care and affection. Believe me, my dear Mrs. James,

Your sympathizing friend,

JANE HARVEY.

To Mrs. Henry James, Nantucket, Mass.

LETTERS BETWEEN PARENTS AND CHILDREN.

LETTERS expressing the feelings of children toward their parents, and the anxious affection of parents for their children, afford themes of the most interesting character, and examples of the most perfect confidence. In style, they have the widest range; "from grave to gay, from lively to severe."

Children away from home, in the excitement of new scenes and new acquaintances, may for a time forget and neglect their parents; but moments must recur reminding them of their affectionate solicitude, and in trouble and affliction making them yearn for a sympathy they may then, only in its absence, thoroughly appreciate; and it is at such times that a letter reveals the heart of the writer and moves that of the parent. Children should, however, accustom themselves to write regularly to their parents, and they should express themselves in the same easy, cheerful way that they would do in speaking at home. The only rule we think it necessary to lay down is the propriety of preserving a due regard to the relationship in which the writers are placed to each other. A father, when writing to a son, should preserve his superiority by a gentle degree of authority, and a son should never lose sight of the manner in which he can best express his sense of filial authority.

From a Father to his Son at School.

TREMONT ST., BOSTON, Sept. 23rd, 1883.

MY DEAR SON: I am delighted to hear of your progress, and send you a little remittance of pocket money to prove to you that I am ever ready to give encouragement when it is deserved. You must always bear in mind that upon your career at school much of your future life depends. To waste the precious hours of youth is to make preparation for a useless and dishonorable old age; whereas by steady industry, care of that health with which God has happily blessed you, and submission to those who have the best right, as well as the best inclination, to advise you for your good, you may hope to ripen into a respectable and useful member of society, and to render yourself fit to encounter those responsibilities which fall to every man's lot. Your mother unites in hearty wishes that you may go on as you have begun, and that your whole life may prove a credit to yourself and a comfort to us. Give our best respects to your excellent preceptor, and believe me

Your affectionate father,

JAMES MCHENRY.

To Master William McHenry,
Nazareth Hall, Nazareth, Pa.

From a Boy at School to Both Parents.

NAZARETH, Dec. 4th, 1883.

MY DEAR PARENTS. It will doubtless give you much pleasure to learn that, owing to the unremitting attention of the Rev. Mr. Kluge, I have made such satisfactory progress that I have not only been removed one class higher in the school, but have carried off the second prize for Latin verse.

I sincerely hope that I may continue sufficiently industrious to keep up all the expectations you have formed of me, and which you have spared no pains or expense to realize. With mingled feelings of regret at leaving my kind preceptor and of delight at the prospect of our speedy meeting for the holidays,

I remain, my dearest parents,

With kindest love to all at home,

Your affectionate son,

WILLIAM MCHENRY.

To Mr. and Mrs. McHenry,
Tremont St., Boston.

From a Young Lady to her Mother.

BOSTON, MASS., June 8th, '81.

MY DEAR MAMMA: From what you know of Boston, you will not be surprised to hear that I have enjoyed an incessant round of gaiety and pleasure. My health, too, is completely recruited, and my friends are so kind that I feel almost at home. But I have another serious matter to confess to you, at which, I hope, you will not feel angry. It seems almost ungrateful to think of loving any one but you; but oh, Mamma, if you saw Harry Lenning, you would forgive me, I am sure. He is so handsome, so gentle in his manners, and yet so sensible and so accomplished! We met at a party given by your old friend, Mrs. Grayson, and he scarcely quitted my side the whole evening. Mrs. Grayson has so high an opinion of him that she repeatedly invited him to her house, until his visits have become of almost daily occurrence. He is most honorable and straightforward, and only waits permission to write to you, in order to give you full particulars as to his condition and prospects. Forgive me, dear mamma, when I tell you that my feelings are deeply enlisted in his favor, and that I feel as if much of my future happiness depended on our union. I wish you were here to counsel and advise me, for never before did I so much feel my own heart master of my reason. I hope you will write directly or come immediately to your affectionate but anxious child,

MINNIE HOWSON.

To Mrs. Gertrude Howson, Fifth Av., N. Y.

The Mother's Reply.

FIFTH AVENUE, June 10th, '81.

MY DEAR CHILD: Make yourself perfectly at ease as to my consent to anything that will promote your happiness. If Mr. Lenning prove to be what you represent, my fondest wishes, that you might meet a desirable partner in life, will be realized. At the same time, do not be too hasty to give an unqualified assent to his proposals, but take time to study his character and disposition through a longer acquaintance. I shall be in Boston on the 15th, and I shall be delighted, not only to meet my dear child again, but to be introduced to the man whom she has thought so worthy of her affections.

Your ever loving mother,

GERTRUDE HOWSON.

To Miss Minnie Howson, Boston, Mass.

NOTES OF CEREMONY AND FAMILIAR INVITATION.

THE form of the note is most frequently adopted by ladies, who in this way generally issue invitations to parties. It is, however, on many general occasions extremely useful, as in returning thanks for any courtesy shown, or when any misunderstanding has arisen between friends, in which case it tends to guard against personalities. It is a form useful, also, as being intermediate between the distant and the familiar styles, though it is not usually employed when the communication is of any length. Notes must be written in the third person throughout, any departure from this rule, either in allusion to the writer or to his correspondents, being a fault of the most glaring kind. It is necessary, also, to avoid the too frequent use of the personal pronouns, which may be effected by occasionally repeating the names of writer aud correspondent when the length of the note requires this expedient. The date and the address of the writer should always be at the foot of the note. The established forms for notes of invitation to dinner, to evening parties, etc., are given under the division of Etiquette. A note of invitation from an intimate friend may be appropriately written in whatever style the degree of mutual understanding between the parties may justify. The chief reason for introducing this class of letters is to point out that they should always be *definite*, however brief, and however freely written. The best guide in these cases is to consider for a moment the time and circumstances under which the letter will be received. How often has unnecessary trouble and doubt been caused by a note without date or even the day of the week, inviting the recipient to come and dine with the family *to-morrow!* Another infallible recipe for obscurity in this class of notes is to write on a Tuesday afternoon, for example, and write your friend to come *next Wednesday.*

An Invitation to a Bachelor Party.

Sept. 20th, 1883.

MY DEAR ALF: My festive self and half-a-dozen other good fellows are going to devote a few hours on Thursday evening to the enjoyment of a few glasses of wine, a game of euchre, and so on. I hope you will make one, as we have not enjoyed "the feast of reason and flow of soul" in each other's company for some time past. Believe me, dear Alfred,

Yours ever,

HARRY HUNTER.

To Alfred Bellville, Esq.,
No. 19 Madison Av., N. Y.

A Lady to Her Friend in the City, Inviting Her to Spend a Month in the Country.

EDDINGTON, BUCKS CO., PA., June 4th, 1883.

MY DEAR FRIEND: I need scarcely tell you that I always feel the greatest pleasure in your society, and am selfish enough on the present occasion to covet it for a month, or for a longer period, should it suit your convenience. If, therefore, you are not so wedded to the attractions of a city life as to be loth to leave them for a short time, I think you would gather some amusement, and also, perhaps, improve your health, by a sojourn in the country. Will you, then, do us the favor of making our rural retreat your temporary abode, assuring yourself that your presence will enliven our family circle, and be a source of real enjoyment to

Your sincere friend,

ELIZA HOOPER.

To Mrs. Letty Davidson, Fifth Av., N. Y.

Answer to the Same, Affirmatively.

FIFTH AVENUE, N. Y., June 5th, 1883.

MY DEAR ELIZA: I have just received your kind letter inviting me to spend a short time at your pleasant home. Though I live so much in New York, I assure you that there are few who feel more delighted with the country than myself, and I could be well contented to make it my residence during a larger part of every year, and should certainly do so did the pursuits of Mr. Davidson allow us to live out of the city. However, my domestic duties are not at present of so pressing a nature as to force me to decline your friendly invitation, and Mr. Davidson, so far from offering any obstacle to my absence from home for a short time, has urged me to send you an affirmative answer, as he thinks that, in addition to the enjoyment which I cannot fail to experience in the society of yourself and family, I shall benefit my health by a change of air and scene. I therefore accept your kind invitation most cheerfully, I may add gratefully. And I am,

My dear Eliza,

Your ever affectionate friend,

LETTY DAVIDSON.

To Mrs. Eliza Hooper, Eddington, Pa.

An Invitation to a Water-Party.

August 10th, 1883.

DEAR CHARLIE: Jack Halcoll, myself and four others are going down the bay in a six-oared boat next Wednesday. Now, you're a jolly fellow and a good steersman, so I hope you will give us your company and your services; indeed, we will take no excuse. We shall set out from my rooms at 7:30 p.m. without fail. Do not disappoint us.

Yours truly, in haste,

EDWARD NEVILLE.

To Charles Ellwood, Esq., Pine St., Philadelphia.

MISCELLANEOUS LETTERS.

THE reader will find arranged under this heading a variety of letters for a variety of circumstances and occasions. With the examples given on the preceding pages, they make the department of "Business and Social Correspondence" a complete and comprehensive guide for all classes of letter-writers.

From One Young Man to Another in Reference to an Attachment.

ATLANTA, GA., Feb. 4th, 1883.

MY DEAR KENNETH: You will laugh at me, and with some reason, when I tell you that all my old skepticism about matrimonial happiness is at an end. I have met with a young lady who, I believe, would convert even you to a belief that marriage may be a very happy state and that bachelors are only miserable wretches after all. In brief, I am the engaged and accepted suitor of Miss Ford, whose visit to New York you remember. Words cannot suffice to express how great has been the enjoyment I have hitherto derived from her society, and the more I see of her amiable character and high accomplishments, the more certain do I feel that the day that first made known to me her consent to share my fortunes will prove one of the happiest in my whole existence. You may think this a very wild effusion and one strangely at variance with my former avowed callousness on the score of domestic life; but, believe me, you will soon be a convert when you see my dear Lettie. Wishing that you may prove as fortunate in the selection of a partner as I have been, I remain,

My dear boy,

Ever affectionately yours,

JOHN NORTON.

To James Caskill, Wall St., N. Y.

Invitation from a Familiar Friend.

DEAR MR. MITCHELL: We shall look for you on Monday evening (the 14th, mind!) at seven o'clock, and if Mrs. Mitchell can leave her baby and come with you, I need not say that we shall be doubly glad to see her. In great haste, which I know you will excuse and rather admire than otherwise,

I am sincerely yours,

GERTRUDE GIBSON.

CAMBRIDGE, March 10th, 1883.

Requesting a Friend to Forward Letters.

NORRISTOWN, April 9th, 1883.

DEAR SIR: May I trespass on your kindness to send me in the enclosed envelope any letter that may come through you to me up to Wednesday, 21st inst.? By so doing you will add to the many kindnesses experienced by,

Dear Sir,

Your obliged friend,

HARRIET HART.

To Henry Chase, Esq., 203 Arch St., Phila.

To a Daughter on Her Birthday.

MY DEAREST CHILD: Your father, brothers and sisters all unite with me in sending you a thousand good wishes on this your fifteenth anniversary. We could all have desired that circumstances would have admitted of your spending it with us; but feeling in these matters must sometimes be sacrificed for our good, and our selfish delights must not be permitted to interfere with the prospects of those dear to us. The package which accompanies this letter contains not only some trifling tokens of affection from all of us, but the materials for a little entertainment which, I have no doubt, Mrs. Boynton will allow you to give to your school-fellows, as I have written to beg a half-holiday on the occasion. God bless you, my dear child! and that every succeeding year may see you increase in all that is desirable in body and mind, is the earnest prayer of your ever anxious parents. With best compliments to your mistress and teachers,

Believe me,

Your ever affectionate mother,

MARGARET THOMAS.

To Miss Lettie Thomas,
"Linden Hall" Seminary, Lititz, Pa.

A Gentleman to His Son, on the Latter's Marriage.

PHILADELPHIA, Jan. 30th, 1883.

MY DEAR SON: It is with no small pleasure, and a slight feeling of parental pride, that I now congratulate you upon your recent change of state. That you have my best and heartiest wishes for your future happiness you already know; but I feel natural pleasure in again giving them expression: and here I have to add that no parent could join in those wishes with more fervent sincerity than your dear and kind mother, who desires to unite with me in the most affectionate regards to our new relation, our daughter-in-law. That your marriage state may be blessed with the same domestic happiness that has fallen to my lot, is the sincere wish of

Your ever affectionate father,

JOHN PAUL JONES.

To Henry Paul Jones, Pollstown, Pa.

Requesting a Friend to Execute a Commission.

YONKERS, June 3d, 1883.

MY DEAR JENNIE: Will you kindly execute the following little commissions for me as soon as you can make it convenient? Purchase for me at Stewart & Co.'s the following articles (here state muslin, lace, etc.) Will you also call at Appleton's and inquire when Bulwer's new novel will be out, as I am all anxiety to know?

Please give them my address at Stewart's, and tell them to pack the parcel carefully and send it by express.

The weather up here is delightful, but I wish I had the pleasure of your company to render it more so. Pray write a line, and let me know how soon you can make me a visit, and thus afford me an opportunity to thank you personally for your kindness.

ELLA FORESTER.

To Miss Jennie Hale,
No. 40 Sixth Avenue, N. Y.

Application of Servant for Testimonial.

East Fourth St., N. Y., Jan. 1, '82.

Respected Madam: Being desirous of again entering service in my former capacity of cook and laundress, I write to ask the favor of a testimonial from you as to my general character and capability. I am sorry to have to trouble you, but I feel that you will do anything you can to further me in obtaining employment. With sincere thanks for your past kindness,

I am, respected Madam,
Your grateful servant,
Charlotte Fields.

To Mrs. Louise Balmer,
No. 24 West Fifty-first St., New York.

Acknowledging Receipt of Testimonial, with Thanks.

Beaker St., Boston, May 15, '82.

Reverend Sir: I have received your most obliging and considerate communication, and I beg that you will accept my warmest thanks for the handsome, if not too flattering, testimonial you have been pleased to hand me. I sincerely trust that my future career may continue to be marked by conduct worthy of your approbation, and assuring you of my deep sense of the obligation under which you have placed me,

I am, reverend Sir,
Your obedient and grateful servant,
Eliza Hazleton.

To the Rev. John Snowden,
Rittenhouse Square, Boston.

Inquiry Regarding a Servant's Character.

No. 1428 Pine St., St. Louis, May 4, '83.

Madam: Susan Macy, who is applying for the place of cook in my house, refers me to you for her character and qualifications. I shall, therefore, feel obliged by your informing me if she is honest, cleanly, industrious and obliging; also if she is well acquainted with plain cookery.

I am, Madam, yours respectfully,
Mary Martin.

To Mrs. Ann Cooper, 243 Arch St., Phila.

A Merchant Urging Payment of Account.

Warren St., New York, May 3, '82.

Sir: I must solicit your prompt attention to the enclosed account, which has already been due over two months. On the 10th I have a heavy obligation to meet, which will require all the funds I can procure; and, as you have not remitted me any cash for some time past, I trust you will comply with my request, and forward a draft for the whole or a considerable part of the balance due me. Please reply by return mail, and let me know whether I may depend upon you.

Your obedient servant,
James Parsons.

To Henry P. Jones, Brooklyn.

A Letter of Introduction.

New Orleans, June 3d, '81.

Dear Sir: The present will be handed you by Mr. Smith, partner of Mr. Stillwell, who was himself an associate of the house of Cross & Black, Memphis. Mr. Smith intending to visit your city on business of his house, we take the liberty of recommending him to you, and of begging you to render him all the services in your power, and to furnish him all the information of which he may have need, or which may appear likely to you to insure the success of his trip. Should Mr. Smith have need of any money for his expenses, you will be good enough to let him have what he may ask for, and charge the same to our account.

Very respectfully,
Yours, etc.,
Lord & Taylor.

To Julius Sichel, Esq., Wall Street, N. Y.

From a Lady to Another, an Invalid.

Spruce St., Philadelphia, May 1, 1883.

My Dear Miss Hartman: I am truly grieved to hear of your continued indisposition, but trust that you may speedily enjoy the return of your wonted health and energy. There is much consolation in the fact that your spirits are good, and that the illness does not affect any vital part. Considering which, I have every confidence that, with God's blessing, the careful attentions of your friends will soon make your complete recovery a matter of certain and cordial congratulation. With kindest wishes and sympathy, I am, dear Miss Hartman,

Yours ever sincerely,
Amanda Merrill.

To Miss Ella Hartman, Columbus, Ohio.

An Invitation to a Picnic Party.

Newark, June 15th, 1883.

My dear Sir: We are endeavoring to get up a small excursion to visit High Bridge on the 18th of this month. Will you do us the favor of making one of our number? Mrs. Shaw and my family desire their compliments, and request me to mention that they have taken upon themselves the task of providing the "creature comforts" for that occasion, and trust that their exertions will meet with unanimous approval. Should you have no previous engagement for that day, and feel disposed to join our party, a carriage will be at your door by seven o'clock on Wednesday morning. And believe me to be,

My dear Sir,
Yours most sincerely,
Charles Shaw.

P. S.—The favor of an early answer will oblige.

To Stephen Wainwright, Esq., Yonkers, N. Y.



A DICTIONARY OF SYNONYMS AND ANTONYMS.

Containing over Twenty Thousand Words of both Similar and Contrary Meaning.

NOTHING can be more embarrassing than that deplorable poverty of speech which makes a man iterate and reiterate his one word, when but a slight knowledge of Synonyms would permit him to express his ideas in an elegant and faultless manner.

Every one has felt the necessity, in writing or speaking, of having at command a ready vocabulary from which to select words that will clearly and forcibly convey the intended meaning and at the same time save the inelegance of frequent repetitions.

In fact, some writers have made the number of Synonyms in a language the test of its civilization and fitness for literature. Thus the ancient Greek fairly teems with words having a like signification, so that every delicate shade of meaning might be clearly and forcibly put; the same may be said of Latin and of Hebrew. On the other hand, while the English language contains about forty thousand words, Latham and other scholars have decided that the vocabulary of the English peasant does not contain more than five or six hundred words. Consequently it seems clear that a knowledge of words is the most direct possible test of culture and civilization.

The rhetorical fault known as tautology is best overcome by an acquaintance with Synonyms. On the other hand a knowledge of Antonyms stands next in importance to Synonyms, for one of the strongest figures of speech is "Antithesis," or the putting of matters in startling contrast and opposition—a method known of old as one of the most effective weapons in the armory of the rhetorician. The Dictionary of Antonyms following will be found one of the most complete ever published. The student will, upon finding the antonym he wishes, turn to its peculiar synonyms, and thus find the very word for which he may be seeking. To illustrate the use and necessity of synonyms to the writer and speaker we append a sentence which clearly shows the value of a dictionary of this character.

Example.

He was a man of acute perception, acute judgment, acute intellect and acute observation.

The Same Sentence Improved.

He was a man of { acute / keen / quick } perception, { shrewd / piercing / discerning } judgment, { bright / sharp / subtle } intellect and { intelligent / penetrating / clear-sighted } observation.

On the other hand there are cases when the reiteration of the same word gives strength and consistency to a sentence; when the same word used again and again comes at last to be like the blows of a hammer, riveting attention to the subject.

Of this character is Webster's celebrated sentence in his speech on "American Institutions."

Webster's Celebrated Sentence.

"Our Government can stand trial, it can stand assault, it can stand adversity, it can stand persecution; it can stand everything but the weakness of our own strength, it can stand everything but disorganization, disunion and nullification."

A

Abandon. *v.* 1. Leave, quit, forsake, drop, relinquish, evacuate, give over, cast off. 2. Surrender, cede, resign, waive, vacate. *Anto.*, keep, hold, retain.

Abandoned. *adj.* 1. Deserted, forsaken. 2. Depraved, corrupt, profligate, shameless, incorrigible. *Anto.*, 1. Kept, cared for. 2. Virtuous, holy.

Abase. *v.* 1. Reduce, lower. 2. Degrade, humble, disgrace. *Anto.*, 1. Increase, raise. 2. Honor, praise.

Abash. *v.* Shame, confuse, humiliate. *Anto.*, embolden, reassure.

Abate. *v.* 1. Lessen, reduce, diminish. 2. Moderate, allay. 3. Suppress, remove, terminate. *Anto.*, 1. Augment. 2. Infuriate, 3. Empower, permit.

Abbreviate. *v.* Curtail, shorten. *Anto.*, enlarge, lengthen.

Abduct. *v.* Kidnap. *Anto.*, rescue.

Abet. *v.* Aid, assist, help. 2. Favor, sanction. 3. Instigate, incite. *Anto.*, 1. Resist. 2. Oppose. 3. Forbid.

Abhor. *v.* Hate, loathe, detest. *Anto.*, love, admire.

Abide. *v.* Sojourn, live, dwell. *Anto.*, depart, leave.

Ability. *n.* 1. Power, force, might. 2. Competency. 3. Capacity, genius, turn. *Anto.*, Inability. 1. Feebleness. 2. Insufficiency. 3. Incapability.

Abject. *adj.* Base, vile, mean, low. *Anto.*, lofty, good, noble.

Able. *adj.* 1. Clever, accomplished, talented. 2. Qualified. 3. Gifted, strong, mighty. *Anto.*, 1. Stupid. 2. Unfit. 3. Weak, feeble.

Abolish. *v.* 1. Repeal, revoke, annul, cancel. 2. Overthrow. *Anto.*, 1. Enforce, hold. 2. Establish.

Abominable. *adj.* 1. Hateful, odious. 2. Loathsome, nauseous. 3. Vile, wretched. *Anto.*, 1. Lovable. 2. Pleasant. 3. Happy, good.

Abridge. *v.* Contract, compress. *Anto.*, expand. *See Abbreviate.*

Abrupt. *adj.* 1. Broken, rugged. 2. Steep. 3. Sudden, unexpected. 4. Short, curt. *Anto.*, 1. Smooth. 2. Level. 3. Slow. 4. Long, courteous.

Absolute. *adj.* 1. Real, positive. 2. Arbitrary, despotic. 3. Independent. *Anto.*, 1. Shadowy. 2. Limited. 3. Dependent.

Abstinence. *n.* Temperance, fast. *Anto.*, feast, plenty, orgies.

Abstruse. *adj.* Profound, recondite, hidden. *Anto.*, simple, clear.

Absurd. *adj.* Silly, foolish, laughable. *Anto.*, wise, solemn.

Abundance. *n.* Plenty, profuseness, richness. *Anto.*, famine, want, poverty.

Abuse. *v.* 1. Pervert, misuse. 2. Harm, injure. 3. Revile, reproach, malign. *Anto.*, 1. Use. 2. Protect. 3. Praise.

Accept. *v.* Receive, take. *Anto.*, refuse, reject.

Acceptable. *adj.* Pleasing, welcome. *Anto.*, displeasing.

Accidental. *adj.* Casual. *Anto.*, preconcerted.

Accommodate. *v.* 1. Oblige, serve, assist. 2. Fit, suit, adapt. 3. Reconcile, adjust. *Anto.*, 1. Disoblige, impede. 2. Spoil. 3. Embitter.

Accomplish. *v.* Complete, perform, execute. *Anto.*, fail.

Accomplished. *adj.* 1. Educated, experienced, practiced, adroit, talented. 2. Polished, refined, polite. *Anto.*, 1. Ignorant, awkward. 2. Boorish, ill-bred.

Account. *n.* Narrative, recital, history. *Anto.*, rebuttal, negation.

Accrue. *v.* Result, issue, ensue. *Anto.*, stop, delay, bar.

Accumulate. *v.* 1. Collect, gather. 2. Store, garner, hoard. 3. Increase, grow. *Anto.*, 1. Dissipate, scatter. 2. Spend. 3. Lessen, diminish.

Accurate. *adj.* Correct, exact, precise. *Anto.*, wrong, loose, erroneous.

Accuse. *v.* Charge, criminate, arraign. *Anto.*, exonerate.

Accustom. *v.* Habituate, familiarize, addict. *Anto.*, unused, undrilled.

Achieve. *v.* *See Accomplish.*

Acknowledge. *v.* Admit, concede, avow. *Anto.*, deny.

Acquaint. *v.* Tell, inform, notify. *Anto.*, deceive.

Acquire. *v.* Get, gain, secure, win, obtain. *Anto.*, lose.

Acquit. *v.* Clear, absolve, exonerate. *Anto.*, convict, indict.

Act. *v.* 1. Work, move, execute. 2. Behave, demean. 3. Operate. 4. Do, perform. 5. Personate, play, enact. *Anto.*, 1. Idle, loaf. 2. Misbehave. 3. To be inert. 4. Refuse. 5. Verify.

Act. *n.* 1. Deed, performance. 2. Statute, law. 3. Part of a play.

Active. *adj.* 1. Brisk, alert, nimble, smart. 2. Busy, diligent, enterprising. 3. Powerful, drastic. *Anto.*, 1. Lazy. 2. Lacking energy. 3. Weak.

Actually. *adv.* Really, truly, verily. *Anto.*, falsely, deceptively.

Acute. *adj.* 1. Keen, shrewd, sharp, discerning, knowing, quick, smart, bright, intelligent, ingenious, subtle, penetrating, piercing, clear-sighted, sharp-witted, long-headed. 2 Severe, violent, intense, exquisite, pungent. *Anto.*, 1. Dull. 2. Stupid.

Add. *v.* 1. Join, annex, append, tag. 2. Sum, cast up. *Anto.*, 1. Disconnect, separate. 2. Subtract, take away.

Address. *n.* 1. Appeal, petition, entreaty. 2. Speech, discourse, oration. 3. Skill, art, tact. 4. Superscription, direction. 5. Manner. *Anto.*, 3. Clumsiness, awkwardness.

Adhere. *v.* Cling, cleave, cohere. *Anto.*, loosen.

Adjacent. *adj.* Near, bordering, contiguous. *Anto.*, far, asunder.

Adjust. *v.* Arrange, trim, regulate, adapt, accommodate. *Anto.*, disarrange, disorder, confuse.

Admirable. *adj.* Excellent, fine, praiseworthy. *Anto.*, blamable, execrable.

Admire. *v.* Wonder, like, esteem, love. *Anto.*, hate, despise, dislike.

Admit. *v.* 1. Grant, concede, confess. 2. Let in. *Anto.*, 1. Deny. 2. Keep out, exclude.

Admonish. *v.* Advise, warn, reprove. *Anto.*, recommend.

Adulation. *n.* Flattery. *Anto.*, blame, scolding.

Advancement. *n.* Preferment, progression. *Anto.*, displacement, retrogression, receding.

Adventure. *n.* 1. Stake, risk, chance. 2. Accident, danger, event. *Anto.*, 1. Certainty. 2. Quiet, safety.

Adversity. *n.* Trouble, misfortune, sorrow, distress. *Anto.*, prosperity, wealth, joy.

Advertise. *v.* Announce, publish, proclaim. *Anto.*, conceal.

Advice. *n.* 1. Counsel, caution. 2. Information.

Affable. *adj.* Civil, sociable, easy. *Anto.*, surly, discourteous.

Affection. *n.* Partiality, fondness. *Anto.*, dislike.

Afflict. *v.* Trouble, annoy, torment, harass. *Anto.*, please.

Affront. *v.* Insult, abuse, condemn. *Anto.*, respect.

Agent. *n.* Factor, substitute. *Anto.*, principal.

Aggregate. *n.* Total, whole, lump, sum, mass. *Anto.*, part.

Agile. *adj.* *See Active.*

Agitation. *n.* 1. Excitement, commotion, tumult. 2. Debate, discussion. *Anto.*, tranquility.

Agree. *v.* 1. Concur, acquiesce, unite. 2. Engage, contract. *Anto.*, 1. Differ, disagree. 2. Refuse.
Aid. *v.* Assist, help. *Anto.*, resist.
Alarm. *n.* Fright, dismay, apprehension. *Anto.*, confidence, courage.
Alert. *adj.* *See Active.*
Aliment. *n.* Food, sustinence, nourishment.
Allay. *v.* Soften, lessen, quiet, ease. *Anto.*, excite.
Alleviate. *v.* *See Allay.*
Alliance. *n.* League, confederacy, union. *Anto.*, disunion, discord.
Allowance. *n.* 1. Salary, wages, pay. 2. Permission. *Anto.*, 2. Prohibition.
Allure. *v.* Tempt, decoy. *Anto.*, repel.
Amass. *v.* *See Accumulate.*
Amatory. *adj.* Tender, amorous, erotic. *Anto.*, hateful.
Amazement. *n.* Wonder, astonishment. *Anto.*, anticipation.
Ambiguous. *adj.* Doubtful, dubious. *Anto.*, clear.
Amicable. *adj.* Kind, friendly, pleasant. *Anto.*, hostile.
Ample. *adj.* 1. Spacious. 2. Plentiful, abundant. *Anto.*, 1. Confined, narrow. 2. Scarce.
Amuse. *v.* Divert, entertain. *Anto.*, weary, tire.
Analogy. *v.* Similarity. *Anto.*, diversity, difference.
Ancestors. *n.* Forefathers. *Anto.*, posterity.
Ancient. *adj.* Old antique. *Anto.*, modern.
Anecdote. *n.* Tale, story.
Anger. *n.* Resentment, wrath, ire, fury, rage, choler. *Anto.*, peacefulness, amiability, calm.
Anguish. *n.* Pain, distress, agony. *Anto.*, bliss.
Animal. *n.* Creature, beast, brute. *Anto.*, things inanimate.
Animate. *v.* Inspire, enliven, cheer, incite, urge. *Anto.*, depress.
Animation. *n.* Life, spirit, vivacity. *Anto.*, apathy.
Animosity. *n.* Enmity, hostility, malignancy. *Anto.*, liking, friendliness.
Annex. *v.* Attach, append, join. *Anto.*, detach, separate.
Announce. *v.* *See Advertise.*
Annoy. *v.* Disturb, molest, trouble. *Anto.*, convenience, please, accommodate.
Annul. *v.* Rescind, abolish. *Anto.*, affirm.
Answer. *n.* Reply, rejoinder. *Anto.*, question.
Anterior. *adj.* Prior, before, previous. *Anto.*, posterior, subsequent.
Anticipate. *v.* Foresee, forestall, prevent. *Ants.*, surprise.
Antipathy. *n.* Aversion, dislike, hatred. *See Animosity.*
Antique. *adj.* Old, ancient, obsolete. *Anto.*, modern, new, fresh.
Anxiety. *n.* Care, solicitude, worry. *Anto.*, certainty, repose.
Any. *adj. pron.* 1. Any one. 2. Some. *Anto.*, none.
Apartment. *n.* Lodging, room, chamber.
Apathy. *n.* Coldness, torpor, unconcern. *Anto.*, animation, *which see.*
Ape. *v.* Imitate.
Apologize. *v.* Excuse, exculpate. *Anto.*, insult, justify.
Appal. *v.* Scare, shock, frighten. *Anto.*, embolden, encourage. *See Alarm.*
Apparel. *n.* Dress, clothing, attire. *Anto.*, nudity.
Apparent. *adj.* Visible, plain, obvious, evident. *Anto.*, concealed, ambiguous, *which see.*
Apparition. *n.* An appearance, ghost, spirit, phantom.
Appear. *v.* 1. Emerge, come into view. 2. Seem, look. *Anto.*, disappear.
Appearance. *n.* 1. Coming, arrival. 2. Air, figure. 3. Semblence. *Anto.*, 1. Departure. 3. Unlikeness
Appease. *v.* Calm. pacify. *Anto.*, inflame.
Appellation. *n.* Name, title.
Applaud. *v.* Cheer, praise, extol. *Anto.*, hiss, blame, belittle.
Application. *n.* Industry, persistency. *Anto.*, idleness, fickleness.
Apply. *v.* Use, appropriate, devote. *Anto.*, misapply.
Appoint. *v.* 1. Fix, establish. 2. Name, constitute. *Anto.*, 1. Change.
Appraise. *v.* Value, estimate, rate.
Appreciate. *v.* Estimate, value, appraise.
Apprehend. *v.* 1. Catch, capture, arrest. 2. Understand, comprehend. 3. Fear, dread, alarm. *Anto.*, 1. Escape. 2. Misunderstand. 3. Embolden.
Apprise. *v.* *See Admonish.*
Approach. *v.* Approximate, come near. *Anto.*, depart.
Approbation. *n.* Approval, sanction, consent. *Anto.*, disapproval.
Approximate. *v.* *See Approach.*
Apt. *adj.* 1. Fit, meet, suitable, qualified. 2. Ready, quick, prompt. *Anto.*, 1. Unfit. 2. Slow.
Arbitrary. *adj.* Irresponsible, tyrannous. *Anto.*, normal, regular, constitutional.
Arbitrator. *n.* Judge, umpire, referee.
Archives. *n.* Records, chronicles.
Ardent. *adj.* Zealous, fervid, hot, intense. *Anto.*, calm, cool.
Arduous. *adj.* Difficult, trying, laborious. *Anto.*, easy, facile.
Argue. *v.* 1. Evince, prove. 2. Reason, discuss, debate. *Anto.*, disprove.
Argument. *n.* Reason, proof, discussion, dispute. *Anto.*, folly, mistake.
Arise. *v.* Mount, ascend, get up. 2. Begin, originate. *Anto.*, descend, go down.
Aristocratic. *adj.* Haughty, proud, arrogant. *Anto.*, democratic, plebeian.
Arms. *n.* Weapons.
Army. *n.* Force, troops. *Anto.*, mob.
Arraign. *v.* *See Accuse. Anto.*, acquit.
Arrange. *v.* 1. Distribute, rank, classify. 2. Plan, devise, organize. *Anto.*, disarrange.
Arrogance. *n.* Pride, haughtiness, superciliousness. *Anto.*, humility.
Artful. *adj.* 1. Skilful. 2. Subtle, shrewd, crafty. *Anto.*, simple, unaffected.
Artifice. *n.* Cunning, trick, stratagem. *Anto.*, honesty, simplicity.
Artist. *n.* 1. Designer. 2. Painter, sketcher. 3. Sculptor, modeller. *Anto.*, dauber.
Assay. *n.* Test, examination, chemical analysis of metals.
Association. *n.* Society, guild, combination. *Anto.*, separation.
Attic. *adj.* Classic, elegant, pure. *Anto.*, stupid, modern, unclassical.
Attitude. *n.* Posture, phase, situation.
Attorney. *n.* Lawyer, counsellor, agent. *Anto.*, client.
Attract. *v.* Allure, fascinate, captivate. *Anto.*, repel.
Attraction. *n.* Charm, fascination. *Anto.*, repulsion.
Audacity. *n.* Daring, hardihood, presumption, insolence. *Anto.*, timidity, meekness.
Augment. *v.* Increase, enlarge, magnify. *Anto.*, decrease, diminish.
Author. *n.* Writer, composer, maker.
Authority. *n.* Liberty, permit, order, warrant. *Anto.*, prohibition.
Avarice. *n.* Closeness, cupidity, covetousness. *Anto.*, liberality, prodigality.
Avow. *v.* Affirm, confess, declare. *Anto.*, deny.
Awake. *adj.* Watchful, vigilant. *Anto.*, sleepy, drowsy.
Awe. *n.* Dread.
Awkward. *adj.* Unskilful, unhandy, boorish, rough. *Anto.*, accomplished, subtle, graceful.

B

Babble. *v.* Prate, chatter. *Anto.*, to be laconic.
Baffle. *v.* Circumvent, foil. *Anto.*, succor, aid, abet.
Baggage. *n.* Luggage.
Balance. *v.* Equalize, counteract, poise. *Anto.*, preponderate.
Band. *n.* 1. Company, crew, gang. 2. Chain, fetter, shackle. 3. Fillet, bandage. 4. Orchestra, company of musicians. *Anto.*, individual, one.
Banish. *v.* Exile, send away, exclude. *Anto.*, recall.
Banter. *v.* Rally, twit, taunt.
Bare. *adj.* Unclothed, naked. *Anto.*, c'ad.
Bargain. *n.* Agreement, contract, sale.
Barter. *v.* Exchange, sell, commute. *Anto.*, retain.
Base. *adj.* *See Abject.*
Bear. *v.* 1. Uphold. 2. Undergo, suffer. 3. Generate, bring forth.
Beastly. *adj.* Brutal, sensual, bestial. *Anto.*, humane, polite.
Beat. *v.* 1. Knock, hit, strike. 2. Defeat, conquer, subdue.
Beau. *n.* 1. Admirer, suitor. 2. Fop, dandy. *Anto.*, belle.
Beauty. *n.* Comeliness, grace, symmetry. *Anto.*, ugliness.
Becoming. *adj.* Appropriate, seemly, fit. *Anto.*, unsuitable.
Beg. *v.* Beseech, solicit, entreat. *Anto.*, grant.
Beguile. *v.* Amuse, divert, delude.
Behavior. *n.* Conduct, bearing, deportment. *Anto.*, misbehavior.
Behold. *interj.* See, look.
Believe. *v.* Credit, assume, deem. *Anto.*, doubt.
Beloved. *adj.* Dear, darling. *Anto.*, hated.
Below. *prep.* Under, beneath. *Anto.*, over, above.
Benefaction. *n.* Gift, gratuity.
Bequeath. *v.* Leave, devise, will. *Anto.*, inherit.
Bereave. *v.* Deprive, take away, strip. *Anto.*, enrich.
Beseech. *v.* *See Beg.*
Bestow. *v.* Confer, give, grant. *Anto.*, withhold.
Better. *v.* Improve, amend, correct. *Anto.*, confuse, deteriorate.
Bill. *n.* 1. Reckoning, statement, account. 2. Draft. 3. Beak. 4. Pick-axe.
Blame. *n.* Censure, reproof, reproach. *Anto.*, praise.
Blemish. *n.* Stain, spot, speck, flaw. *Anto.*, immaculate.
Blind. *adj.* 1. Sightless. 2. Heedless. *Anto.*, far-sighted.
Bloody. *adj.* Sanguinary, gory.
Boast. *v.* Brag, vaunt, glory.
Boldness. *n.* 1. Courage, bravery, valor. 2. Effrontery, impudence. *Anto.*, 1. Cowardice. 2. Bashfulness, modesty.
Bombastic. *adj.* Inflated, pompous, grandiloquent. *Anto.*, concise.
Border. *n.* Verge, brim, edge, frontier. *Anto.*, middle, interior.
Bore. *n.* 1. Nuisance, a prosy talker. 2. Hole, calibre.
Boundless. *adj.* Unlimited, immeasurable, infinite. *Anto.*, limited.
Bountiful. *adj.* Liberal, generous, bounteous. *Anto.*, niggardly, miserable.
Bravery. *n.* *See Boldness.*
Breeding. *n.* Nurture, training, manners. *Anto.*, impoliteness.
Brief. *adj.* Short, concise. *Anto.*, protracted.
Bright. *adj.* Shining, radiant. *Anto.*, dull.
Brilliancy. *n.* Luster, radiance. *Anto.*, dullness.
Brittle. *adj.* Fragile, frail, crumbling. *Anto.*, tough.
Broil. *n.* Quarrel, brawl, fight, affray. *Anto.*, quiet, peace.
Brutal. *adj.* Cruel, unfeeling, savage, ferocious. *Anto.*, humane.
Bud. *v.* Sprout, shoot, germinate.
Buffoon. *n.* Harlequin, fool, idiot. *Anto.*, sage.
Build. *v.* Raise, erect. *Anto.*, destroy, pull down.

Bulk. *n.* Size, magnitude, body, gross. *Anto.*, tenuity.
Burial. *n.* Interment, sepulture. *Anto.*, resurrection.
Burst. *v.* Explode, break open.
Business. *n.* Calling, employment, vocation. *Anto.*, leisure.
Bustle. *n.* Stir, tumult, fuss. *Anto.*, quiet.
Butt. *n.* 1. Mark, object, target. 2. Cask.
Buxom. *adj.* Healthy, brisk, cheerful, lively. *Anto.*, spiritless.
Buy. *v.* Purchase, cheapen, bargain for. *Anto.*, sell.

C

Cabal. *n.* 1. Clique, set, league. 2. Plot, intrigue, conspiracy.
Cajole. *v.* Coax, flatter, wheedle. *Anto.*, compel.
Calamity. *n.* Mishap, misfortune, disaster. *Anto.*, good fortune, luck.
Calculate. *v.* Reckon, count, compute, rate, estimate.
Call. *v.* 1. Cry, shout. 2. Invite, bid, summon. *Anto.*, 1. Whisper. 2. Order away, send.
Calling. *n.* *See Business.*
Callous. *adj.* Hard, unfeeling, dead. *Anto.*, sensitive, nervous.
Calm. *adj.* 1. Composed, collected. 2. Quiet, tranquil, placid. *Anto.*, 1. Stormy. 2. Agitated.
Candid. *adj.* Open, honest, sincere. *Anto.*, deceitful, treacherous.
Capacity. *n.* 1. Volume, amplitude. 2. Ability, competency, faculty, talent. 3. Character, office. *Anto.*, 2. Incapacity, incompetency, stupidity, inability.
Caprice. *n.* Whim, freak, fancy, vagary. *Anto.*, settled purpose, conviction.
Captious. *adj.* Peevish, petulant, fretful, cross. *Anto.*, good-humored, facile, easy.
Captivate. *v.* Fascinate, charm, enchant. *Anto.*, disgust, displease.
Careful. *adj.* 1. Heedful, attentive. 2. Watchful, cautious, circumspect. *Anto.*, heedless, careless, rash.
Caress. *n.* Kiss, embrace. *Anto.*, buffet, spurn.
Carousal. *n.* Feast, banquet, orgie. *Anto.*, fast.
Cash. *n.* Money, coin, specie.
Casualty. *n.* Accident, mischance, contingency.
Cause. *v.* Produce, create, occasion.
Cause. *n.* Reason, motive, inducement, incitement. *Anto.*, effect.
Cavity. *n.* Aperture, opening, hollow.
Cautious. *adj.* Prudent, careful, watchful. *See Careful.* *Anto.*, rash, headlong, heedless.
Celebrate. *v.* 1. Commemorate, keep, observe, honor, solemnize. 2. Praise, extol, glorify. *Anto.*, 1. Forget, ignore. 2. Execrate.
Censure. *v.* Blame, approve, chide, scold, berate. *Anto.*, praise, honor, congratulate, approve.
Certain. *adj.* 1. Sure, assured, confident. 2. Infallible, unfailing. 3. Plain, positive, absolute, indubitable. *Anto.*, uncertain. 1. Dubious, doubtful. 2. Fallacious. 3. Dark, disputed, challenged.
Chance. *n.* 1. Accident, fortune, fortuity, casualty. 2. Hazard, risk, peril, jeopardy. *Anto.*, 1. Design. 2. Safety, certainty, security.
Change. *v.* Alter, vary, turn.
Character. *n.* Repute, reputation, standing.
Charm. *n.* Grace, attraction. *Anto.*, repulsion.
Chastity. *n.* Purity, modesty, virtue, continence. *Anto.*, impurity, lewdness, incontinence.
Chattels. *n., pl.* Goods, effects, personal property. *Anto.*, real estate.
Chatter. *v.* *See Babble.*
Cheat. *v.* Deceive, trick, defraud, swindle.
Cheer. *v.* 1. Applaud. 2. Comfort, console, gladden, encourage. *Anto.*, 1. Hiss. 2. Distress.
Cheerful. *adj.* Lively, merry, sprightly, gay. *Anto.*, sad, weary, downcast, mournful.
Cherish. *v.* 1. Nourish, nurse, nurture. 2. Encourage. 3. Harbor, protect, love. *Anto.*, 1. Starve, famish. 2. Dishearten. 3. Expose, detest.
Chief. *n.* Leader, commander. *Anto.*, subordinate, subaltern.
Chiefly. *adv.* Principally, mainly, mostly, eminently. *Anto.*, secondarily, subsequently.
Childhood. *n.* Minority, infancy. *Anto.*, majority, manhood.
Childish. *adj.* 1. Young, juvenile, infantile. 2. Weak, trifling, silly. *Anto.*, 1. Manful, experienced. 2. Strong, earnest, wise, sapient.
Choice. *n.* Selection, election, option, preference.
Choke. *v.* 1. Suffocate, strangle, throttle. 2. Stop, block, obstruct. *Anto.*, 1. Breathe, animate. 2. Assist, help.
Choose. *v.* Prefer, pick, select, elect.
Circulate. *v.* Propagate, disseminate, diffuse, spread. *Anto.*, confine, stop, bound, retard.
Circumspect. *adj.* Judicious, discreet, prudent, cautious, wary. *Anto.*, imprudent, rash, foolish.
Circumstance. *n.* Incident, accident.
Cite. *v.* 1. Quote, adduce. 2. Summon. *Anto.*, 2. Discharge, release.
Civil. *adj.* 1. Civic, municipal. 2. Urbane, obliging, courteous, polite, refined. *Anto.*, 1. Rural, countrified. 2. Rude, boorish, impolite.
Civility. *n.* 1. Courtesy, politeness, suavity. 2. Benefit, favor, kindness. *Anto.*, 1. Discourtesy, asperity. 2. Unkindness, incivility.
Civilization. *n.* Culture, cultivation, refinement. *Anto.*, barbarism, savagery, ignorance.
Clad. *v., p. p.* Dressed, clothed, attired. *Anto.*, naked, bare.
Clandestine. *adj.* Concealed, hidden, sly, private. *Anto.*, open, prominent, conspicuous, advertised.
Clasp. *v.* Grasp, clutch, gripe. *Anto.*, loosen, open, unclasp.
Clean. *adj.* Unsoiled, spotless, pure, immaculate. *Anto.*, impure, dirty, filthy, soiled, nasty.
Clear. *adj.* 1. Transparent, bright, limpid. 2. Fair, cloudless, serene. 3. Plain, lucid, perspicuous. 4. Patent, obvious, visible, evident. *Anto.*, 1. Opaque, dark. 2. Gloomy. 3. Ambiguous, dubious. 4. Occult, hidden, obscure.
Clear. *v.* Acquit, exonerate. *Anto.*, convict.
Clever. *adj.* 1. Skillful, apt, smart, quick, able. 2. Kind. *Anto.*, stupid, clumsy, awkward, ignorant.
Climb. *v.* Ascend, clamber, scramble. *Anto.*, descend, go down, fall.
Cling. *v.* Adhere, stick. *Anto.*, loosen.
Close. *v.* 1. Shut. 2. End, finish. *Anto.*, 1. Open. 2. Begin, commence.
Clothes. *n.* Raiment, dress, attire, garb, costume, habiliments. *Anto.*, nudity.
Cloy. *v.* Surfeit, sate, satiate, glut. *Anto.*, famish.
Clumsy, *adj.* *See Awkward.*
Coarse. *adj.* 1. Gross, vulgar. 2. Rude, uncivil, gruff. *Anto.*, 1. Nice, polite. 2. Refined.
Coax. *v.* Flatter, wheedle, cajole. *Anto.*, command, compel, force.
Cogent. *adj.* Forcible, powerful, potent, convincing. *Anto.*, weak.
Cold. *adj.* 1. Cool, frigid, wintry. 2. Unfeeling, stoical. *Anto.*, 1. Warm, tropical, fervid, hot. 2. Sensitive.
Cold. *n.* Catarrh, cough.
Collect. *v.* 1. Gather. 2. Accumulate, amass. *Anto.*, scatter, disperse.
Collection. *n.* 1. Crowd, gathering. 2. Accumulation, store, aggregation. 3. Contribution.
Color. *n.* 1. Shade, tinge, tint, hue. 2. Pigment, paint.
Combination. *n.* 1. Union, conjunction, 2. Alliance. 3. Mixture. *Anto.*, disunion, disconnection.
Come. *v.* 1. Approach. 2. Arrive. *Anto.*, 1. Go. 2. Depart.
Comely. *adj.* Handsome, pretty, symmetrical. *Anto.*, ugly, homely, disproportionate.
Comfort. *v.* Solace, cheer, console. *Anto.*, discomfort, disease.
Comical. *adj.* Droll, funny, humorous, ludicrous. *Anto.*, solemn, serious.
Commanding. *adj.* Imperative, authoritative.
Commence. *v.* Begin, originate. *Anto.*, end, finish.
Commend. *v.* 1. Intrust, commit. 2. Praise, extol, laud, eulogize. *Anto.*, 1. Take from, withdraw. 2. Blame, censure, disapprove.
Comment. *n.* 1. Remark, observation. 2. Note, explanation.
Commercial. *adj.* Trading, mercantile.
Commission. *v.* 1. Empower, authorize. 2. Depute, delegate.
Commodious. *adj.* Fit, suitable, convenient. *Anto.*, unfit, inconvenient.
Commodities. *n., pl.* Wares, goods, merchandise, produce.
Common. *adj.* 1. General. 2. Usual, habitual, customary. 3. Trite, stale. 4. Ordinary, low. *Anto.*, 1. Occasional, exceptional. 2. Unusual. 3. Fresh. 4. Peculiar, extraordinary.
Communication. *n.* Conference, conversation, letter.
Community. *n.* 1. Society, public, people. 2. Association, brotherhood.
Companion. *n.* 1. Mate, comrade. 2. Partaker, sharer.
Company. *n.* 1. Assembly, group, gathering. 2. Party. 3. Visitors. 4. Fellowship, society. 5. Corporation, firm. *Anto.*, individual, personality.
Compassion. *n.* Pity, tenderness, clemency. *Anto.*, severity, harshness, cruelty.
Compatible. *adj.* Consistent, consonant. *Anto.*, incompatible, inconsistent.
Compel. *v.* Force, coerce, drive. *Anto.*, cajole, coax, lead.
Compendium. *n.* Compend, abridgment. *Anto.*, discourse, enlargement, augmentation.
Compensation. *n.* Reward, recompense, satisfaction. *Anto.*, loss, punishment, correction.
Competent. *adj.* 1. Able, qualified. 2. Adequate, fit. *Anto.*, 1. Incompetent, feeble. 2. Inadequate.
Competition. *n.* Rivalry, contest, emulation. *Anto.*, monopoly, combination.
Complain. *v.* Murmur, grumble, lament. *Anto.*, rejoice, jubilate.
Compliment. *n.* Praise, commendation, encomium. *Anto.*, insult, blame, detraction.
Comply. *v.* Confirm, yield, submit. *Anto.*, disobey, rebel.
Compound. *adj.* Composite, complex. *Anto.*, simple, uniform, plain.
Compound. *v.* Mix, combine, intermingle. *Anto.*, simplify, analyze, separate.
Comprehend. *v.* 1. Comprise, include, embrace. 2. Grasp, see, understand, perceive. *Anto.*, 1. Exclude. 2. Mistake, misapprehend.
Comprise. *v.* Include, contain, embody, comprehend. *Anto.*, exclude.
Compulsion. *n.* Constraint, coercion. *Anto.*, freedom, liberty.
Compunction. *n.* Remorse, regret, sorrow, penitence. *Anto.*, joy, gratulation, gladness, buoyancy.
Compute. *v.* Reckon, calculate, estimate, count.
Conceal. *v.* 1. Hide, secrete, cover, screen. 2. Disguise, dissemble. *Anto.*, 1. Reveal, uncover, display.
Concede. *v.* 1. Yield, surrender. 2. Grant, admit. *Anto.*, 1. Rebel, repel. 2. Deny.
Conceit. *n.* Vanity, egotism. *Anto.*, humility, meekness.
Concert. *n.* 1. Concord, harmony. 2. Musical entertainment. *Anto.*, 1. Discord.

Concise. *adj.* Short, brief, curt, laconic, terse. *Anto.*, verbose, discursive, lengthy.

Conclude. *v.* 1. Decide, determine. 2. End, finish, terminate. *Anto.*, 1. Differ, disagree. 2. Begin, commence.

Concur. *v.* Agree, coincide, join. *Anto.*, disagree.

Concussion. *n.* Clash, shock.

Condemn. *v.* Blame, censure, reprove, disapprove. *Anto.*, acquit, exonerate, exculpate, clear, justify.

Conduct. *n.* 1. Management. 2. Behavior, deportment, demeanor.

Confess. *v.* 1. Admit, grant, concede. 2. Acknowledge, avow. *Anto.*, deny, traverse.

Confidence. *n.* 1. Faith, trust, belief. 2. Assurance, courage. *Anto.*, 1. Distrust, incredulity. 2. Timidity.

Conflict. *n.* Contest, struggle, fight, battle.

Confound. *v.* Amaze, perplex, bewilder, stupefy, dumbfound.

Confusion. *n.* 1. Jumble, disarray, disorder. 2. Tumult, commotion. 3. Shame, abashment. *Anto.*, 1. Order, array. 2. Quiet. 3. Pride, hauteur, self-possession.

Congenial. *adj.* Suited, adapted, agreeable. *Anto.*, unsuited, uncongenial.

Conjecture. *n.* Guess, supposition, surmise. *Anto.*, demonstration, proof.

Conjugal. *adj.* Matrimonial, nuptial, bridal, connubial. *Anto.*, celibate.

Connoisseur. *n.* Critic, judge. *Anto.*, ignoramus.

Connubial. *adj.* *See Conjugal.*

Conquer. *v.* Overcome, vanquish, subdue, checkmate, master, subject, crush. *Anto.*, fail, yield, give up, surrender.

Consanguinity. *n.* Kindred, relationship.

Consideration. *n.* 1. Cause, reason, ground, motive. 2. Attention, deliberation. *Anto.*, 2. Inattention.

Consistent. *adj.* Accordant, compatible. *Anto.*, inconsistent, discordant.

Conspicuous. *adj.* 1. Prominent, eminent. 2. Visible, apparent. *Anto.*, 1. Unknown, lowly. 2. Obscure, hidden.

Constrain. *v.* 1. Compel, coerce, force. 2. Curb, restrain. *Anto.*, 1. Cajole, coax. 2. Loosen, liberate.

Construct. *v.* 1. Fabricate, erect, build, raise. 2. Make, form, frame, institute. *Anto.*, 1. Overturn. 2. Destroy.

Consume. *v.* Devour, expend, waste, destroy. *Anto.*, build up, save, keep.

Contagious. *adj.* 1. Catching, infectious. 2. Poisonous, deadly, pestilential. *Anto.*, 2. Healthy, wholesome.

Contaminate. *v.* Defile, sully, pollute. *Anto.*, clean, whiten, clear.

Contempt. *n.* Scorn, disregard, disdain. *Anto.*, regard, liking, admiration.

Contemptible. *adj.* Mean, base, despicable, abject. *Anto.*, lofty, noble, honorable.

Contentment. *n.* Ease, satisfaction. *Anto.*, discontent, sorrow, melancholy.

Contest. *n.* *See Conflict.*

Contingent. *adj.* Uncertain, conditional. *Anto.*, sure, certain, fixed.

Continual. *adj.* Endless, unceasing, perpetual, eternal. *Anto.*, intermittent, broken.

Contract. *n.* Bargain, compact, agreement, stipulation.

Contrary. *adj.* 1. Opposite, counter, adverse. 2. Conflicting, repugnant. 3. Perverse, stubborn, obstinate. *Anto.*, 1. Similar. 2. Unanimous. 3. Agreeable.

Control. *v.* Direct, regulate, manage, govern.

Convenient. *adj.* Suitable, appropriate, useful. *Anto.*, unsuitable, wrong.

Conversation. *n.* Talk, dialogue, colloquy. *Anto.*, silence.

Convertible. *adj.* Interchangeable. *Anto.*, unchangeable, immovable.

Conveyance. *n.* 1. Transfer, alienation, deed. 2. Carriage.

Convict. *v.* Condemn, find guilty. *Anto.*, acquit, exculpate, exonerate.

Convince. *v.* Satisfy, persuade. *Anto.*, dissuade.

Convivial. *adj.* Jovial, jolly, festive. *Anto.*, gloomy, sad, thoughtful.

Cool. *adj.* 1. Not warm. 2. Collected, calm, dispassionate. *Anto.*, 1. Warm. 2. Excited, enthused.

Copy. *v.* 1. Transcribe. 2. Imitate. *Anto.*, originate.

Cordial. *adj.* Sincere, warm, hearty, heartfelt, ardent. *Anto.*, heartless, cold, deceitful.

Correct. *adj.* Right, true, accurate, faultless. *Anto.*, wrong, erroneous, faulty.

Correspondent. *adj.* Answerable, suitable. *Anto.*, unsuitable, unfit.

Cost. *n.* Expense, charge, price.

Counsel. *n.* 1. Counsellor, attorney, advocate, barrister, lawyer. 2. Opinion, advice, admonition, recommendation.

Counterfeit. *adj.* 1. Forged, spurious. 2. Sham, feigned, simulated. *Anto.*, 1. Genuine, real. 2. Sincere, actual.

Couple. *n.* Pair, brace.

Courage. *n.* Bravery, spirit, valor, heroism, fearlessness. *Anto.*, cowardice, timidity, fear.

Courtesy. *n.* Civility, urbanity, politeness. *Anto.*, rudeness, boorishness.

Covenant. *n.* *See Contract.*

Covert. *adj.* Secret, disguised, hidden, concealed. *Anto.*, open, displayed, shown.

Covetousness. *n.* Stinginess, avarice, parsimony, penuriousness. *Anto.*, generosity, liberality.

Cowardice. *n.* Fear, timidity, poltroonery, pusillanimity. *Anto.*, courage, bravery, valor.

Coy. *adj.* Shy, bashful, reserved, demure, modest. *Anto.*, bold, brazen, shameless.

Crack. *n.* 1. Crevice, chink, cranny, opening, breach, fissure. 2. Explosion, report.

Crafty. *adj.* Shrewd, cunning, artful, astute, subtle, tricky. *Anto.*, simple, artless, ingenuous.

Cravat. *n.* Necktie, neck-cloth, neckerchief.

Crave. *v.* 1. Beg, beseech, solicit, entreat, implore. 2. Desire. *Anto.*, 1. Give, offer, confer. 2. Disdain.

Crazy. *adj.* 1. Insane, mad, lunatic. 2. Ricketty, tottering. *Anto.*, 1. Sane. 2. Strong, stalwart.

Create. *v.* 1. Cause, produce, originate. 2. Make, constitute. *Anto.*, destroy.

Credit. *n.* 1. Trust, belief, faith, confidence. 2. Esteem, reputableness, regard. 3. Honor, merit. *Anto.*, discredit, incredulity.

Creditable. *adj.* Reputable, honorable. *Anto.*, dishonorable, shameful.

Credulous. *adj.* Unsuspecting, superstitious, gullible. *Anto.*, knowing, disbelieving, doubtful.

Creed. *n.* Belief, doctrines, dogmas. *Anto.*, skepticism, heterodoxy.

Crestfallen. *adj.* Discouraged, disheartened, depressed, dejected. *Anto.*, encouraged, emboldened, determined.

Crisis. *n.* 1. Height, acme. 2. Emergency, exigency, strait, pinch.

Criterion. *n.* Measure, test, standard.

Croak. *v.* Murmur, grumble, complain. *Anto.*, rejoice, congratulate.

Crooked. *adj.* 1. Bent, curved, awry, distorted. 2. Dishonest, knavish, unfair, unscrupulous. *Anto.*, 1. Straight. 2. Honest, fair, honorable.

Cross. *adj.* Captious, peevish, petulant, fretful, snappish. *Anto.*, agreeable, good-humored.

Cruel. *adj.* Pitiless, unmerciful, inhuman, barbarous, brutal, savage. *Anto.*, kind, pitiful, merciful, human.

Cube. *n.* Die, a regular solid with six equal square sides.

Cultivation. *n.* 1. Culture, civilization, refinement. 2. Tillage. *Anto.*, desolation, desert.

Cure. *n.* 1. Remedy, restorative, corrective. 2. Healing, restoration. *Anto.*, 1. Poison. 2. Relapse.

Curious. *adj.* 1. Prying, inquisitive. 2. Rare, unique, queer. *Anto.*, 1. Uninterested, careless. 2. Common, ordinary, usual.

Current. *adj.* 1. Present, existing. 2. Common, general, rife. *Anto.*, 1. Past. 2. Rare, unique, singular.

Curse. *n.* Imprecation, execration, malediction. *Anto.*, blessing, benison.

Cursory. *adj.* Superficial, hasty, careless, desultory. *Anto.*, thorough, careful, exact.

Curtail. *v.* Retrench, reduce, shorten, abridge, decrease. *Anto.*, increase, augment, lengthen.

Custody. *n.* Care, keeping, watch, protection.

Custom. *n.* 1. Usage, practice, habit. 2. Tax, impost, duty, tribute.

Cynical. *adj.* Morose, carping, sarcastic, snarling, satirical. *Anto.*, agreeable, jovial, companionable.

D

Daily. *adj.* Diurnal, quotidian. *Anto.*, irregular, disordered.

Dainty. *adj.* 1. Nice, delicate, savory, delicious. 2. Squeamish, fastidious. 3. Elegant, fine. *Anto.*, 1. Nasty, tasteless, bitter. 2. Careless, slovenly. 3. Coarse.

Dalliance. *n.* Fondling, caressing, endearment.

Damage. *v.* Mar, harm, hurt, impair, injure. *Anto.*, help, strengthen, defend.

Dampness. *n.* Moisture, humidity, damp. *Anto.*, dryness, aridity.

Damsel. *n.* Lass, miss, maid, maiden, girl. *Anto.*, lad, boy, youth, young man.

Danger. *n.* Risk, venture, hazard, peril, jeopardy. *Anto.*, safety, security.

Daring. *adj.* Courage, bravery, valor, intrepidity. *Anto.*, cowardice, fear, timidity.

Dark. *adj.* 1. Cloudy, rayless, murky, shady, unilluminated. 2. Gloomy, dismal. 3. Wicked, foul, atrocious. 4. Obscure, mystical, mysterious. *Anto.*, bright, light. 3. Honest, fair. 4. Open, intelligible.

Date. *n.* Time, period, age, era, epoch.

Dead. *adj.* 1. Inanimate, lifeless, breathless, defunct. 2. Dull, frigid, obtuse, callous. 3. Useless, unprofitable. *Anto.*, 1. Live, breathing. 2. Attentive, active, sharp. 3. Useful.

Deadly. *adj.* 1. Deleterious, destructive, noxious, fatal, mortal. 2. Rancorous, implacable. *Anto.*, wholesome, healthy.

Dear. *adj.* 1. Beloved, darling, precious. 2. Costly, high-priced, expensive. *Anto.*, 1. Hated, despised, loathed. 2. Cheap, low, common.

Debase. *v.* *See Abase.*

Debate. *v.* Discuss, canvass, argue, dispute, contest.

Deceitful. *adj.* Deceptive, illusive, delusive, fallacious. *Anto.*, truthful, plain, open, honest, correct.

Deceive. *v.* Delude, over-reach, fool, trick, cheat, gull, dupe.

Decide. *v.* Determine, conclude. *Anto.*, differ, disagree.

Declaration. *n.* Assertion, averment, avowal, affirmation, asseveration. *Anto.*, denial, negative.

Decorate. *v.* Deck, adorn, ornament, embellish, beautify. *Anto.*, spoil, spot.

Decorum. *n.* Propriety, decency. *Anto.*, impropriety, misbehavior.

Decoy. *v.* Tempt, allure, entice, inveigle, seduce. *Anto.*, repel, warn, advise.

Decrease. *v.* Diminish, lessen. *Anto.*, increase, augment, replenish.

Decree. *n.* Order, mandate, fiat, edict.

Deduct. *v.* Separate, subtract, take away. *Anto.*, add, increase, augment.

Defame. *v.* Asperse, calumniate, slander, vilify. *Anto.*, praise, glorify, celebrate, defend.

Defeat. *v.* 1. Beat, conquer, overcome, rout. 2. Balk, disappoint, baffle, foil, frustrate.

Defect. *n.* 1. Flaw, blemish, imperfection. 2. Fault, failing. *Anto.*, perfection, improvement, beauty.

Defend. *v.* 1. Guard, shield, protect. 2. Uphold, maintain, vindicate. *Anto.*, 1. Expose. 2. Asperse, slander, defame.

Defer. *v.* Adjourn, delay, postpone. *Anto.*, push, force, expedite.

Deference. *n.* Regard, respect, reverence, homage. *Anto.*, disrespect, irreverence, contumely.
Definite. *adj.* Certain, determined, exact, precise. *Anto.*, uncertain, indefinite, vague.
Defraud. *v.* Cheat, gull, over-reach.
Defy. *v.* Brave, dare, disregard, despise. *Anto.*, submit, humiliate, concede.
Deity. *n.* Divinity, Godhead, God. *Anto.*, Devil.
Dejected. *adj.* Depressed, disheartened, despondent. *Anto.*, joyous, mercurial, glad.
Delay. *v.* Linger, stop, procrastinate. *Anto.*, hasten, expedite.
Delectable. *adj.* Pleasant, agreeable, delightful. *Anto.*, abominable, despicable, nasty.
Delegate. *n.* Commissioner, representative, deputy.
Delicious. *adj.* Delicate, palatable, luscious. *Anto.*, bitter, nauseous.
Delightful. *adj.* Charming, enchanting, ravishing. *Anto.*, displeasing.
Delinquent. *n.* Offender, wrong-doer, culprit, criminal.
Delirium. *n.* Wandering, hallucination, derangement.
Delude. *v.* *See Deceive.*
Demand. *v.* Require, claim, exact. *Anto.*, give, offer, relinquish.
Demolish. *v.* Destroy, overthrow, level, ruin. *Anto.*, build, construct, raise.
Demonstrate. *v.* Show, establish, prove.
Demonstration. *n.* Proof, manifestation.
Demoralize. *v.* Corrupt, deprave, vitiate. *Anto.*, reform, rescue.
Denote. *v.* Imply, signify, indicate, mark, designate.
Deny. *v.* 1. Contradict, gainsay. 2. Disown, disavow, abjure. 3. Withhold. *Anto.*, avow, admit, concede.
Depart. *v.* 1. Go, start, leave, set out. 2. Vanish, disappear. *Anto.*, 1. Come, return. 2. Emerge, appear.
Dependence. *n.* Reliance, trust, confidence. *Anto.*, independence.
Depict. *v.* 1. Describe. 2. Delineate, portray, pencil, paint.
Deplore. *v.* Lament, mourn, bewail, bemoan. *Anto.*, rejoice, congratulate, celebrate.
Deportment. *n.* Demeanor, behavior, carriage, conduct.
Deprecate. *v.* Regret. *Anto.*, desire, commend.
Depreciate. *v.* 1. Underrate, undervalue, lessen the price of. 2. Censure, degrade, traduce, malign. *Anto.*, 1. Overrate. 2. Praise, vindicate.
Depress. *v.* 1. Lower, drop, sink. 2. Deject, dispirit, chill. 3. Debase, humiliate. *Anto.*, 1. Elevate, raise. 2. Encourage. 3. Exalt.
Derange. *v.* Confuse, displace, unsettle, disorder. *Anto.*, arrange.
Descend. *v.* 1. Fall, drop, sink, go down. 2. Dismount. *Anto.*, ascend.
Design. *n.* 1. Sketch, outline, plan, draught. 2. Intent, aim, purpose, object, scheme.
Designate. *v.* 1. Name, call, style, denominate. 2. Denote, indicate, show, specify. 3. Appoint.
Desire. *v.* 1. Ask, request. 2. Wish, want, fancy, covet, crave.
Desolation. *n.* 1. Gloom, sadness, wretchedness, misery. 2. Ruin, destruction. *Anto.*, joy, pleasure, happiness.
Despair. *n.* Desperation, despondency, hopelessness. *Anto.*, hope, cheerfulness.
Despicable. *adj.* Mean, pitiful, contemptible, abject. *Anto.*, elevated, generous, praiseworthy.
Despotic. *adj.* Absolute, arbitrary, imperious, tyrannical. *Anto.*, free, democratic, constitutional.
Destiny. *n.* 1. Fate, necessity. 2. Lot, doom, fortune, fate.
Destroy. *v.* 1. Consume, waste, devour, desolate. 2. Demolish, overthrow, subvert. 3. Annihilate, extirpate, eradicate, kill. *Anto.*, create, build, call together, construct.
Detach. *v.* Separate, sever, disjoin. *Anto.*, join.
Detain. *v.* Restrain, confine, delay, retain. *Anto.*, hasten, expedite, send away.
Detect. *v.* Descry, discover, expose.
Determine. *v.* 1. Settle, end, decide, conclude. 2. Lead, influence, induce. 3. Ascertain, verify. *Anto.*, 1. Begin, commence, unsettle. 2. Follow. 3. Falsify, negative.
Detraction. *n.* Censure, slander, calumny, defamation. *Anto.*, praise, commendation.
Develop. *v.* Unfold, open, evolve, grow. *Anto.*, close, end, wither, wilt, droop.
Devil. *n.* 1. Satan, Belial, Lucifer, arch-enemy, the tempter, the adversary, the prince of darkness. 2. Demon. *Anto.*, God, Deity.
Devoid. *adj.* Empty, destitute, vacant, void. *Anto.*, full, complete, overflowing.
Dexterous. *adj.* Adroit, skillful, handy, apt, clever. *Anto.*, awkward, unskillful, boorish, rough.
Diction. *n.* Expression, phraseology, language, style.
Dictionary. *n.* 1. Lexicon, glossary, vocabulary. 2. Encyclopædia.
Die. *v.* Expire, decease, wither, perish. *Anto.*, live, breathe, flourish, grow.
Different. *adj.* 1. Various, manifold, unlike, diverse. 2. Separate, distinct. *Anto.*, similar, alike, homogeneous.
Difficult. *adj.* Arduous, hard, herculean. *Anto.*, easy, facile.
Digest. *n.* Compend, abstract, brief, epitome.
Dilemma. *n.* Strait, predicament, quandary.
Diligence. *n.* Activity, industry, perseverance, assiduity. *Anto.*, idleness, laziness, lassitude, languor.
Diminish. *v.* *See Decrease.*
Direction. *n.* 1. Order. 2. Address, superscription. 3. Course, bearing.
Disaffection. *n.* Breach, disagreement, dissatisfaction, estrangement, alienation.
Disagree. *v.* 1. Quarrel, wrangle, bicker. 2. Dissent, differ, vary. *Anto.*, 1. Conciliate, pacify. 2. Agree, equate.
Disappear. *v.* Vanish, pass, fade, dissolve. *Anto.*, appear, emerge, come into view.
Disapproval. *n.* Disapprobation, dislike, displeasure. *Anto.*, approbation, liking, pleasure.
Disarrange. *v.* Unsettle, derange. *Anto.*, order, marshal, fix.
Disbelief. *n.* Incredulity, distrust, doubt, skepticism, infidelity. *Anto.*, faith, belief, trust.
Discomfort. *v.* Annoy, trouble, disturb, molest. *Anto.*, comfort, ease, quiet, pacify, calm.
Discontent. *n.* Uneasiness, disquietude, dissatisfaction. *Anto.*, comfort, ease, quiet, peace, contentment.
Discourtesy. *n.* Incivility, impoliteness, rudeness. *Anto.*, courtesy, breeding, good manners, behavior.
Discredit. *n.* 1. Distrust. 2. Disrepute, obloquy. *Anto.*, 1. Credit. 2. Reputation, standing.
Discuss. *v.* Canvass, sift, argue, ventilate, debate.
Disease. *n.* Ailment, complaint, illness, sickness, malady. *Anto.*, health.
Disgrace. *v.* Degrade, debase, sully, stain, dishonor. *Anto.*, exonerate, exculpate, clear, release, justify, vindicate.
Dishonest. *adj.* Unfair, false, knavish, fraudulent. *Anto.*, honest, reputable, right, proper, trusty, sincere, candid.
Dislike. *n.* Aversion, antipathy, repugnance, disgust. *Anto.*, liking, admiration, love, regard.
Dismiss. *v.* Discharge, discard, turn off. *Anto.*, receive, take back.
Disoblige. *v.* Discommode, offend, displease. *Anto.*, oblige, favor.
Dispassionate. *adj.* Sober, calm, temperate, composed, imperturbable. *Anto.*, passionate, stormy, disturbed.
Display. *v.* 1. Exhibit, show. 2. Unfold, open, spread. *Anto.*, hide, conceal, cover, close.
Displease. *v.* 1. Dissatisfy, offend, disgust. 2. Anger, irritate, affront. *Anto.*, please, comfort, ease, quiet.
Disregard. *v.* Overlook, slight, neglect, contemn. *Anto.*, regard, favor, notice, watch, oversee.
Dissembler. *n.* Feigner, hypocrite.
Dissipate. *v.* 1. Lavish, squander, waste. 2. Dispel, scatter. *Anto.*, 1. Save, economize. 2. Gather.
Dissolute. *adj.* *See Abandoned.*
Distant. *adj.* 1. Remote, far. 2. Reserved, coy, shy, cold. *Anto.*, 1. Near, close. 2. Bold, shameless, impudent.
Distress. *n.* 1. Suffering, pain, anguish, agony. 2. Adversity, trouble. 3. Want, indigence, poverty. *Anto.*, 1. Pleasure, ease, contentment. 2. Happiness. 3. Wealth, affluence.
Distrust. *n.* Mistrust, suspicion, discredit, disbelief. *Anto.*, trust, confidence, reliance.
Diversity. *n.* 1. Variation, unlikeness, difference. 2. Variety. *Anto.*, sameness, likeness, homogeneity.
Docile. *adj.* Apt, tractable, teachable. *Anto.*, intractable, savage, untamable.
Doleful. *adj.* 1. Melancholy, woeful, sad, sorrowful. 2. Dolorous, gloomy. *Anto.*, joyous, bright, happy.
Domestic. *adj.* Homely, tame. *Anto.*, exoteric, extraneous, foreign, wild.
Doubt. *n.* 1. Suspense, irresolution, uncertainty. 2. Suspicion, mistrust. *Anto.*, 1. Foreknowledge, resolution, certainty. 2. Confidence.
Drag. *v.* Draw, pull, haul, tug.
Dread. *n.* Fear, awe, apprehension. *Anto.*, courage, boldness, valor.
Dreadful. *adj.* Awful, frightful, fearful, direful, horrible, terrible.
Droll. *adj.* 1. Odd, queer. 2. Comic, funny, farcical. *Anto.*, 1. Usual, ordinary. 2. Solemn, funereal.
Droop. *v.* 1. Decline, fail, languish. 2. Fade, wilt, wither. *Anto.*, 1. Rise, succeed. 2. Bloom, blossom, grow, wax.
Dull. *adj.* 1. Stupid, shallow. 2. Inert, sluggish. 3. Blunt, obtuse. 4. Gloomy. *Anto.*, 1. Knowing, deep. 2. Active. 3. Sharp, shrewd. 4. Bright.
Dunce. *n.* Simpleton, fool, ninny, idiot, dolt, oaf, dullard. *Anto.*, sage.

E

Eager. *adj.* 1. Zealous, ardent, impetuous. 2. Impatient, longing, yearning. *Anto.*, 1. Lukewarm. 2. Patient.
Earn. *v.* 1. Gain, obtain, get, acquire, win. 2. Merit, deserve. *Anto.*, squander.
Easy. *adj.* Light, not difficult. 2. Quiet, comfortable. 3. Unconstrained. *Anto.*, 1. Difficult. 2. Uneasy. 3. Confined.
Eccentric. *adj.* Odd, peculiar, erratic, anomalous, aberrant. *Anto.*, usual, ordinary, commonplace.
Ecstacy. *n.* 1. Delight, rapture, transport. 2. Enthusiasm. *Anto.*, despair, sorrow, torture.
Educate. *v.* Train, discipline, instruct, school, teach. *Anto.*, ignore.
Efface. *v.* Cancel, blot, erase, expunge, obliterate. *Anto.*, rewrite, strengthen.
Effective. *adj.* 1. Active, effectual. 2. Sufficient, cogent, energetic, forcible, potent. *Anto.*, ineffectual, idle, slow, weak.
Effectual. *adj.* *See Effective.*
Egotistical. *adj.* Conceited, self-important, selfish. *Anto.*, humble, lowly, generous.
Elevate. *v.* 1. Exalt, promote. 2. Raise, lift. 3. Improve, refine, ennoble. 4. Animate, cheer, elate. *Anto.*, depress, lower, vulgarize, deaden, sadden.
Embarrass. *v.* 1. Disconcert, confuse, confound. 2. Distress, hamper, clog. 3. Perplex. *Anto.*, assist, help, explain.
Embolden. *v.* Inspirit, reassure, animate encourage. *Anto.*, abash, confuse.

Emergency. *n.* Strait, difficulty, exigency, necessity, crisis.
Eminent. *adj.* Exalted, remarkable, prominent, conspicuous, distinguished. *Anto.*, obscure, lowly, meek, humble.
Emotion. *n.* Feeling, excitement, agitation, passion. *Anto.*, calm, quiet, ease.
Employment. *n.* Engagement, occupation, pursuit, avocation, business. *Anto.*, idleness, leisure.
Encourage. *See Embolden.*
Endless. *adj.* 1. Unlimited, boundless, illimitable, infinite. 2. Eternal. *Anto.*, limited, ephemeral. 2. Finite, mortal.
Energetic. *adj.* Active, forcible, strong, vigorous, powerful. *Anto.*, feeble, weak, enervated.
Enervate. *v.* Weaken, enfeeble, break, debilitate, paralyze. *Anto.*, invigorate, nerve, strengthen.
Engagement. *n.* 1. Employment. 2. Encounter, battle. 3. Promise, pledge, assurance, contract.
Engross. *v.* Occupy, absorb, engage, monopolize, forestall. *Anto.*, vacate, empty.
Enhance. *v.* 1. Raise, heighten, swell, advance. 2. Augment, increase. *Anto.*, lower, recede, reduce.
Enjoyment. *n.* Gratification, delight, pleasure, happiness. *Anto.*, sorrow, sadness, grief.
Enlarge. *See Augment.*
Enmity. *n.* Animosity, aversion, hostility, hatred, malevolence. *Anto.*, friendship, kindliness, love, admiration.
Ennoble. *v.* *See Elevate.*
Ennui. *n.* Listlessness, irksomeness, tedium, languor, lassitude. *Anto.*, liveliness, vigor, enjoyment, buoyancy.
Enterprise. *n.* 1. Attempt, undertaking, endeavor, venture. 2. Energy.
Entertain. *v.* Divert, amuse, please. *Anto.*, sadden, make gloomy.
Enthusiasm. *n.* Earnestness, devotion, zeal, ardor. *Anto.*, frivolity, ennui, lukewarmness.
Entice. *v.* *See Allure.*
Entreat. *v.* Petition, ask, beseech, implore, pray, supplicate.
Enumerate. *v.* Number, count, reckon, numerate.
Ephemeral. *adj.* Short-lived, transitory, living but a day. *Anto.*, eternal, endless.
Epicure. *n.* Gourmand, sybarite, sensualist, voluptuary. *Anto.*, ascetic, stoic.
Epithet. *n.* Name, designation, appellation.
Equable. *adj.* Even, regular, steady, equal, uniform. *Anto.*, eccentric, unequal, rugged.
Equestrian. *n.* 1. Rider, horseman. 2. Chevalier, chasseur, knight, cavalier. *Anto.*, pedestrian, infantry, footman.
Equitable. *adj.* 1. Fair, reasonable, justifiable, right. 2. Just, honest, impartial. *Anto.*, unjust, unreasonable, wrong, dishonest.
Equivocate. *v.* Lie, shuffle, dodge, quibble, prevaricate.
Error. *n.* 1. Oversight, mistake, blunder. 2. Transgression, fault, offence, sin.
Erudition. *n.* Learning, knowledge, lore, science, scholarship. *Anto.*, ignorance.
Eschew. *v.* Avoid, shun. *Anto.*, seek.
Espouse. *v.* 1. Marry, wed. 2. Betroth. *Anto.*, divorce.
Establish. *v.* 1. Organize, found, institute, fix, plant, settle. 2. Prove. 3. Confirm, ratify. *Anto.*, 1. Overthrow, destroy, unsettle. 2. Disprove. 3. Deny, refuse.
Esteem. *n.* 1. Honor, respect, reverence. 2. Valuation, opinion. *Anto.*, contempt, irreverence.
Eternal. *See Endless.*
Evasion. *n.* Quibble, shift, subterfuge, equivocation.
Evening. *n.* Dusk, twilight, eve, even, nightfall. *Anto.*, morning, dawn, aurora.
Event. *n.* 1. Occurrence, incident, accident. 2. Conclusion, result, consequence.
Ever. *adj.* 1. Evermore, always, aye, perpetually, eternally. 2. At any time. *Anto.*, never.
Evident. *adj.* Apparent, obvious, clear, palpable, manifest. *Anto.*, obscure, hidden.
Exalt. *v.* 1. Glorify, bless, praise, extol, magnify. 2. Raise, erect, elevate. 3. Dignify, ennoble. *Anto.*, 1. Execrate. 2. Lower. 3. Abase.
Exasperate. *v.* Irritate, vex, offend, provoke, incense, anger, enrage. *Anto.*, soothe, mollify, pacify, please.
Excellent. *adj.* 1. Choice, prime, sterling, matchless, superior. 2. Good, virtuous, worthy. *Anto.*, bad, low. 3. Villainous, worthless.
Excel. *v.* Surpass, beat, outdo, exceed. *Anto.*, fail, fall behind.
Excerpt. *n.* Citation, extract, quotation.
Exculpate. *v.* Excuse, justify, pardon, clear, exonerate. *Anto.*, convict, indict, arraign, blame.
Excursion. *n.* Ramble, jaunt, trip, tour, journey.
Excuse. *n.* 1. Plea, justification, apology. 2. Guise, color, pretext, pretence.
Execute. *See Accomplish.*
Exegesis. *n.* 1. Exegetics, explanation, exposition, interpretation.
Exercise. *v.* Practice, pursue. 2. Drill, train, discipline. 3. Exert, use, apply. *Anto.*, rust, decay, degenerate, become sluggish.
Exhale. *v.* Breathe, evaporate, emit. *Anto.*, inhale, inspire.
Exhilarate. *v.* Animate, gladden, cheer, elate, inspirit. *Anto.*, depress, discourage, deject, dampen, chill.
Exigency. *See Emergency.*
Exonerate. *See Acquit and Exculpate.*
Expectation. *n.* Prospect, anticipation, confidence, hope, trust, reliance. *Anto.*, suddenness, abruptness, fear, dismay.
Expedite. *v.* Quicken, hurry, hasten, accelerate, speed. *Anto.*, delay, retard, clog, bar.
Expense. *n.* Outlay, charge, expenditure, cost.
Experience. *n.* 1. Knowledge, wisdom. 2. Practice. *Anto.*, 1. Ignorance. 2. Inexperience.
Experiment. *v.* Proof, test, trial, examination, assay.
Explain. *v.* Expound, illustrate, unfold, interpret, elucidate. *Anto.*, confuse, muddle, darken.
Expound. *See Explain.*
Expression. *n.* 1. Phrase, term, utterance, declaration. 2. Look, appearance, aspect.
Extend. *v.* 1. Expand, augment, dilate, enlarge, protract, prolong. 2. Yield, offer. *Anto.*, 1. Abridge, shorten, lessen. 2. Take, receive.
Extraordinary. *adj.* Uncommon, signal, rare, unusual, remarkable. *Anto.*, common, usual, customary.
Extravagant. *Adj.* 1. Wasteful, lavish, profuse, prodigal. 2. Wild, absurd. 3. Unreasonable, inordinate, preposterous. *Anto.*, 1. Stingy, miserable, close. 2. Probable, credible. 3. Common, ordinary, customary.
Extricate. *v.* Relieve, clear, disentangle. *Anto.*, involve, entangle.
Exuberate. *adj.* Full, copious, liberal, lavish. *Anto.*, empty, vacant, scarce.

F

Fable. *n.* 1. Tale, novel, romance, myth. 2. Falsehood, fiction, fabrication, lie. *Anto.*, history. 2. Truth, verity, fact.
Facetious. *adj.* Sportive, waggish, jocose, jocular. *Anto.*, serious, gloomy, saturnine.
Fail. *v.* 1. Miss, miscarry. 2. Omit, neglect. 3. Decay, wane, decline. 4. Break. *Anto.*, accomplish, succeed. 2. Perform. 3. Grow, strengthen. 4. Mend.
Faithful. *adj.* 1. Constant, loyal, true. 2. Reliable, truthful. 3. Close, strict. *Anto.*, faithless, deceitful.
Faithless. *adj.* Perfidious, treacherous, false. *Anto.*, faithful.
False. *adj.* 1. Untrue. 2. Deceptive, fallacious, spurious, counterfeit. 3. Incorrect. *Anto.*, 1. True. 2. Real, genuine, actual. 3. Correct.
Family. *n.* 1. Class, race, lineage, tribe. 2. Household. 3. Order. *Anto.*, individual.
Fascinate. *v.* Charm, catch, captivate, bewitch, enamor. *Anto.*, alarm, dismay, disenchant, intimidate.
Fast. *n.* 1. Abstinence, fasting. *Anto.*, feast, gorge.
Fate. *n.* 1. Fatality, destiny, lot, doom. *Anto.*, chance.
Feast. *n.* 1. Festival, holiday. 2. Entertainment, banquet, carousal. *Anto.*, fast, abstinence.
Feeble. *adj.* 1. Weak. 2. Languid, sickly, frail, debilitated. *Anto.*, strong, energetic, stalwart.
Feeling. *n.* 1. Affectation, sensibility, emotion. 2. Sensation, touch. *Anto.*, callousness, hard-heartedness.
Feminine. *adj.* 1. Delicate, soft, womanly. 2. Effeminate. *Anto.*, 1. Coarse, hard. 2. Masculine.
Fervor. *n.* 1. Eagerness, ardor, zeal. 2. Warmth. *Anto.*, laziness, apathy.
Festival. *n.* *See Feast.*
Feudal. *adj.* Feodal, military (tenure.) *Anto.*, allodial, democratic.
Fickle. *adj.* Changeable, unstable, variable, capricious, inconstant. *Anto.*, faithful, constant, immutable.
Final. *adj.* 1. Conclusive, decisive. 2. Ultimate, last. *Anto.*, opening, beginning.
Fine. *adj.* 1. Nice, refined. 2. Little, small, minute. 3. Excellent. 4. Handsome, beautiful, elegant. 5. Delicate. 6. Light. *Anto.*, coarse, large, mean, ugly.
Finish. *v.* 1. Conclude, end, terminate. 2. Perform, accomplish, complete. 3. Perfect. *Anto.*, 1. Begin, open. 2 and 3. Destroy, tear down.
Firmness. *n.* 1. Strength, stability. 2. Solidity, hardness. *Anto.*, 1. Weakness. 2. Softness, penetrability.
Flag. *n.* Standard, colors, ensign, banner.
Flashy. *adj.* Gay, airy, jaunty, showy, tawdry, ostentatious, haunting. *Anto.*, sombre, solemn.
Flattery. *n.* 1. Adulation, fawning, servility, sycophancy, obsequiousness. 2. Compliment. *Anto.*, blame, objection, disapproval, detraction.
Flavor? *n.* 1. Taste, smack, savor. 2. Smell, odor, fragrance. *Anto.*, tastelessness.
Flaw. *n.* 1. Fracture, crack. 2. Speck, spot, fault, imperfection, defect, blemish. *Anto.*, 1. Whole, solid. 2. Perfect, immaculate, clear.
Flimsy. *adj.* 1. Thin, slight. 2. Trivial, feeble, weak, frivolous, shallow. *Anto.*, 1. Strong, stalwart. 2. Worthy, good, earnest, deep.
Fluctuate. *v.* 1. Waver, vacillate. 2. Oscillate.
Fluency. *n.* Flow, glibness, volubility. *Anto.*, silence, taciturnity.
Fondness. *n.* 1. Liking, partiality. 2. Love, tenderness. *Anto.*, hate, dislike.
Food. *n.* Victuals, viands, fare, subsistence, aliment, nutriment.
Fool. *See Dunce.*
Foppish. *adj.* Dandified, coxcombical, dandyish. *Anto.*, slovenly, untidy.
Forcible. *adj.* 1. Vigorous. 2. Strong, potent, cogent, powerful. 3. Violent. *Anto.*, feeble, weak, puny.
Forego. *v.* Resign, yield, surrender, relinquish, abandon. *Anto.*, take, receive, demand.
Foresight. *n.* Prudence, precaution, anticipation, forecast, prescience. *Anto.*, imprudence, rashness.
Forethought. *n.* *See Foresight.*
Forgive. *v.* Excuse, absolve, pardon, acquit. *Anto.*, avenge, charge, indict, implicate, accuse.
Formidable. *adj.* Dreadful, tremendous, terrible, shocking. *Anto.*, small, ridiculous, puny.
Forsake. *v.* Abandon, quit, desert, renounce, forswear. *Anto.*, cleave.
Forswear. *v.* 1. Renounce, forsake, desert. 2. Recant, abjure. *Anto.*, subscribe.

Fortitude. *n.* Resolution, firmness, endurance. *Anto.*, weakness.
Fortune. *n.* 1. Chance, luck, fortuity. 2. Property, estate, riches, wealth. 3. Destiny, lot, fate, doom. *Anto.*, 2. Poverty.
Fragile. *adj.* Weak, feeble, frail, fragible. *Anto.*, strong.
Fragrance. *n.* Aroma, perfume, balminess, incense. *Anto.*, stench, effluvia.
Frail. *adj.* *See Fragile.*
Frank. *adj.* Open, sincere, artless, candid. *Anto.*, artful.
Fraud. *n.* Cheat, deception, collusion, guile. *Anto.*, honesty.
Freak. *n.* Fancy, humor, crotchet, vagary, whim, caprice. *Anto.*, purpose, resolution.
Free. *adj.* 1. Unrestrained, unobstructed. 2. Gratuitous, willing. 3. Frank, sincere, artless. 4. Generous, liberal. *Anto.*, 1. Slavish. 2. Costly. 3. Artful. 4. Stingy.
Free. *v.* 1. Clear, rid. 2. Release, liberate, emancipate. *Anto.*, bind, enslave.
Freeze. *v.* 1. Congeal. 2. Chill, benumb. *Anto.*, melt.
Fretful. *adj.* Captious, waspish, splenetic, snappish, petulant. *Anto.*, equable, good-humored.
Frivolous. *adj.* *See Flimsy.*
Frugality. *n.* Carefulness, economy, thrift. *Anto.*, extravagance, wastefulness.
Fruitful. *adj.* 1. Fecund, prolific, productive. 2. Plenteous. *Anto.*, sterile, fruitless, unproductive.
Fruitless. *adj.* Barren, sterile, unproductive. 2. Futile, useless. *Anto.*, fruitful.
Frustrate. *v.* Balk, baffle, defeat, foil, disappoint. *Anto.*, expedite.
Fully. *adj.* Wholly, entirely, completely. *Anto.*, partly.
Furniture. *n.* 1. Effects, goods, movables, chattels. 2. Apparatus. 3. Decorations, ornaments.
Futile. *adj.* 1. Useless, fruitless, vain, idle. 2. Frivolous, trifling. *Anto.*, 1. Fruitful. 2. Earnest.

G

Gage. *n.* 1. Challenge. 2. Pawn, security, pledge.
Gain. *n.* Advantage, benefit, profit, emolument. *Anto.*, loss.
Gain. *v.* Get, secure, win, earn, achieve, obtain, procure. *Anto.*, lose.
Gang. *n.* Band, party, set, company, coterie. *Anto.*, individual.
Garb. *n.* Dress, habit, attire, apparel. *Anto.*, nudity, nakedness.
Garble. *v.* Falsify, misquote, mutilate. *Anto.*, restore, verify.
Garrulity. *n.* Babble, talkativeness, loquacity. *Anto.*, taciturnity.
Gathering. *n.* Meeting, company, assembly, concourse. 2. Earning, acquisition. 3. Abscess.
Gaudy. *adj.* *See Flashy.*
Gawky. *adj.* *See Awkward.*
Generous. *adj.* Liberal, bountiful, magnificent, noble. *Anto.*, 1. Stingy. 2. Mean.
Gentle. *adj.* 1. Bland, lenient, kind, mild, humane. 2. Docile, tame, quiet, tractable. *Anto.*, rough.
Genuine. *adj.* 1. True, authentic, unalloyed. 2. Unaffected, sincere. *Anto.*, false.
Giddiness. *n.* Dizziness, vertigo.
Giddy. *adj.* 1. Dizzy. 2. Fickle, unstable. 3. Flighty, careless, heedless. *Anto.*, sedate, balanced.
Gift. *n.* 1. Endowment, talent, faculty, genius. 2. Present, donation, offering, gratuity, contribution, subscription, douceur.
Gigantic. *adj.* Huge, vast, colossal. *Anto.*, small, mean, little.
Gingerly. *adv.* Dainty, careful, cautious, fastidious. *Anto.*, rash, careless.
Girdle. *n.* Band, cincture, belt, cestus, zone.
Glad. *adj.* 1. Pleased, gratified, rejoiced. 2. Cheerful, joyous. 3. Gratifying. *Anto.*, sad, sombre.
Gloomy. *adj.* 1. Dull, obscure, dismal, dusky, lowering. 2. Depressed, dejected, sad. *Anto.*, bright, joyful.
Go. *v.* 1. Move, advance, proceed. 2. Depart. 3. Extend. 4. Fare. 5. Lend, contribute. *Anto.*, come.
Go. *interj.* Avaunt, begone.
God. *n.* Lord, Creator, Almighty, Omnipotence, Providence, Jehovah.
Good Nature. *n.* Kindness, amiability, benevolence, benignity. *Anto.*, malevolence, rudeness.
Goods. *n., pl.* 1. Wares, merchandise. 2. Chattels, furniture.
Grandeur. *n.* Greatness, sublimity. 2. Dignity, state, magnificence, majesty. *Anto.*, humility.
Grant. *v.* 1. Concede, admit. 2. Give, bestow, vouchsafe. 3. Transfer, convey. *Anto.*, take.
Grateful. *adj.* 1. Obliged, beholden, thankful. 2. Palatable, cordial, delicious, refreshing. 3. Pleasant, agreeable, delightful. *Anto.*, ungrateful.
Gratify. *v.* Indulge, humor, delight, satisfy, please. *Anto.*, displease.
Great. *adj.* 1. Bulky, big, large, huge, vast. 2. Noted, distinguished, eminent, exalted, illustrious. 3. Noble, magnanimous. 4. Numerous. *Anto.*, small.
Greedy. *adj.* Gluttonous, rapacious, insatiate, ravenous, voracious. *Anto.*, generous, unselfish.
Grief. *n.* Distress, sorrow, regret, affliction, tribulation, woe, anguish. *Anto.*, joy.
Gruff. *adj.* Blunt, harsh, rough, rude, churlish. *Anto.*, polite.
Grumble. *v.* Croak, murmur, complain, growl. *Anto.*, rejoice.
Guard. *v.* Protect, watch, shelter, shield, defend. *Anto.*, attack, harass.
Guarded. *adj.* Careful, watchful, cautious, wary. *Anto.*, unguarded.
Guidance. *n.* Lead, conduct, direction, government. *Anto.*, following.
Guile. *n.* Artifice, duplicity, deceit, subtlety, cunning, craft, fraud. *Anto.*, honesty, simplicity.
Guiltless. *adj.* Innocent, blameless, spotless, pure, immaculate. *Anto.*, guilty.
Guilty. *adj.* Culpable, sinful, criminal. *Anto.*, guiltless.
Gyrate. *v.* Whirl, rotate, revolve.

H

Hail. *v.* Greet, welcome, salute.
Hale. *adj.* Sound, strong, healthy, hardy, hearty, robust. *Anto.*, feeble.
Handsome. *adj.* 1. Comely, fair, pretty, beautiful. 2. Ample, plentiful. 3. Generous, magnanimous, noble. *Anto.*, ugly.
Happiness. *n.* Enjoyment, bliss, beatitude, felicity. *Anto.*, sorrow.
Harass. *v.* 1. Worry, vex, plague, tease, trouble, distress. 2. Fag, exhaust, jade. *Anto.*, please, comfort, protect.
Hard. *adj.* 1. Compact, solid, impenetrable. 2. Knotty, difficult. 3. Arduous, laborious. 4. Unfavorable. 5. Callous, cruel. *Anto.*, soft.
Hasten. *v.* Accelerate, dispatch, speed, quicken, expedite. *Anto.*, hinder, delay.
Hate. *v.* Detest, abominate, loathe, abhor. *Anto.*, love.
Hate. *n.* Enmity, antipathy, hostility, detestation, hatred. *Anto.*, love.
Haughty. *adj.* Lofty, proud supercilious, arrogant. *Anto.*, modest.
Head-strong. *adj.* Unruly, dogged, stubborn, obstinate. *Anto.*, reasonable, judicious.
Heal. *v.* 1. Remedy, cure, restore. 2. Settle, reconcile. *Anto.*, 1. Hurt, wound. 2. Unsettle, disrupt.
Healthy. *adj.* Well, sound, hale, vigorous. *Anto.*, sickly.
Hearken. *v.* Attend, listen, hear.
Hearty. *adj.* *See Hale.*
Heart-broken. *adj.* Desolate, wretched, disconsolate, inconsolable. *Anto.*, joyous, happy.
Heartless. *adj.* Unkind, cruel, cold, pitiless. *Anto.*, cordial, kind.
Heavenly. *adj.* 1. Angelic, divine, godlike. 2. Celestial. *Anto.*, Mundane.
Heedless. *adj.* Careless, thoughtless, inattentive, negligent. *Anto.*, careful.
Heighten. *v.* 1. Raise, elevate, exalt. 2. Increase, enhance. 3. Intensify. *Anto.*, lower, decrease.
Hell. *n.* Hades, purgatory, Gehenna. *Anto.*, heaven.
Helpful. *adj.* Useful, beneficent, convenient. *Anto.*, helpless.
Helpless. *adj.* Weak, feeble, infirm, powerless, impotent, imbecile. *Anto.*, strong, helpful.
Herculean. *adj.* *See Strong, Difficult.*
Heroic. *adj.* 1. Bold, valiant, brave, courageous, noble, dauntless. 2. Epic. *Anto.*, 1. Cowardly.
Hesitation. *n.* Doubt, suspense, uncertainty, vacillation. *Anto.*, determination.
Hideous. *adj.* Dreadful, frightful, horrible, appalling, ghastly. *Anto.*, beautiful.
Highwayman. *n.* Robber, bandit, brigand, road-agent, marauder.
Hinder. *v.* Stop, impede, retard, check, thwart. *Anto.*, hasten.
Hint. *n.* Allusion, suggestion, intimation, insinuation.
Holiday. *n.* Festival, anniversary, celebration. *Anto.*, fast-day.
Holy. *adj.* 1. Good, pious, religious, devout, pure, saintly, godly. 2. Hallowed, sacred. *Anto.*, wicked, bad.
Home. *n.* Abode, domicile, residence, dwelling.
Homely. *adj.* 1. Plain, coarse, uncomely. 2. Domestic, homelike. 3. Ugly. *Anto.*, beautiful, handsome.
Honest. *adj.* 1. Equitable, right, proper, honorable. 2. True, faithful, just, upright, trustworthy. 3. Candid, sincere. *Anto.*, dishonest, inequitable.
Honor. *n.* Credit, esteem. 2. Respect, homage. 3. Distinction, dignity. 4. Integrity, nobility, probity. *Anto.*, dishonor.
Honor. *v.* Dignify, exalt. 2. Observe, celebrate. 3. Respect, reverence, venerate. *Anto.*, abase.
Hope. *v.* Believe, trust, desire, expect. *Anto.*, despair.
Hostile. *adj.* 1. Adverse, opposite, contrary, repugnant. 2. Unfriendly. *Anto.*, amicable, friendly.
Hostility. *n.* *See Hate.*
Hot. *adj.* 1. Fiery. 2. Pungent, biting, acrid. 3. Glowing, ardent, fervid. 4. Passionate, irascible, impetuous. *Anto.*, cold, cool.
Hue. *n.* Tint, tinge, shade, color.
Huge. *adj.* *See Gigantic.*
Humane. *a.* Kind, charitable, benevolent, gentle, tender. *Anto.*, cruel.
Humility. *n.* Modesty, meekness, lowliness, humbleness. *Anto.*, grandeur.
Humorous. *adj.* Funny, witty, jocular, jocose, facetious. *Anto.*, serious.
Hurry. *v.* *See Hasten.*
Hurry. *n.* 1. Haste, dispatch, promptitude, celerity. 2. Bustle, flutter, precipitation. *Anto.*, hinder, delay.
Hypocrisy. *n.* 1. Deceit, dissimulation, imposture. 2. Cant, pharisaism, sanctimoniousness. *Anto.*, openness, truth, candor.
Hypocrite. *n.* 1. Cheat, pretender, impostor, dissembler. 2. Pharisee, canter.
Hypothesis. *n.* Theory, supposition.

I

Ideal. *adj.* Fancied, unreal, shadowy, imaginary. *Anto.*, real.
Idleness. *n.* Inactivity, inertness, laziness, sloth. *Anto.*, labor.
Ignorance. *n.* Darkness, blindness, nescience, illiteracy. *Anto.*, knowledge.
Ill-bred. *adj.* Uncourtly, uncouth, unpolished, impolite, rude. *Anto.*, polite.
Illustrious. *adj.* 1. Bright, glorious. 2. Famous, celebrated, eminent, renowned. *Anto.*, 1. Dim. 2. Unknown, infamous.
Immoderate. *a.* Unreasonable, extravagant, inordinate, excessive. *Anto.*, moderate.
Imperious. *adj.* *See Despotic.*
Impetuous. *adj.* Hasty, precipitate, passionate, violent, vehement, furious. *Anto.*, calm.

Importance. *n.* Moment, weight, concern, significance, consequence. *Anto.*, frivolity.

Impression. *n.* 1. Stamp, impress. 2. Idea, notion. 3. Effect, sensation, influence.

Improve. *v.* 1. Mend. 2. Progress. 3. Rise, increase. *Anto.*, deteriorate, lessen.

Imprudent. *adj.* Incautious, indiscreet, injudicious, careless, rash. *Anto.*, cautious.

Impure. *adj.* 1. Unclean, dirty, foul, filthy. 2. Coarse, gross, immodest, indecent, obscene, vulgar, lewd. *Anto.*, pure.

Inability. *n.* 1. Incompetency, incapacity, inefficiency, impotence. 2. Disability, disqualification. *Anto.*, ability.

Inaccurate. *adj.* Inexact, incorrect, erroneous. *Anto.*, accurate.

Inapt. *adj.* Unfit, unsuitable, inappropriate, inapposite. *Anto.*, suitable, meet.

Incapacity. *n. See Inability.*

Incompatible. *adj.* Unadapted, incongruous, inconsistent, unsuitable. *Anto.*, compatible.

Incompetent. *adj.* 1. Unable, incapable. 2. Disqualified, incapacitated, unfit. 3. Insufficient. *Anto.*, able, fit, sufficient.

Inconsistent. *adj.* 1. Contrary. *See Incompatible.*

Incontinence. *n.* Unchastity, wantonness, lechery, lewdness, lasciviousness. *Anto.*, chastity.

Inconvertible. *adj.* Unchangeable, unalterable, not convertible. *Anto.*, changeable.

Incorrect. *adj.* 1. Faulty. 2. Inaccurate, inexact, erroneous, false, untrue. *Anto.*, correct.

Indefinite. *adj.* Undefined, indistinct, unsettled, doubtful, uncertain, loose. *Anto.*, definite.

Independence. *n.* Liberty, freedom, self-direction. *Anto.*, dependence.

Individual. *n.* Being, person, character. *Anto.*, band, community.

Ineffectual. *adj.* 1. Feeble, weak, powerless. 2. Inoperative, unavailing, useless, abortive. *Anto.*, effectual.

Inequitable. *adj.* Unfair, unjust, dishonorable. *Anto.*, equitable.

Inexperience. *n.* Ignorance, greenness, rawness. *Anto.*, experience.

Ingenuous. *adj.* Honest, frank, candid, artless, guileless. *Anto.*, crafty.

Inharmony. *n.* Discord, harshness, dissonance, discordance. *Anto.*, concert.

Innocent. *adj.* 1. Harmless, innocuous. 2. Clean, guiltless, spotless, immaculate. *Anto.*, Guilty.

Insanity. *n. See Lunacy.*

Inspire. *v.* 1. Inhale. 2. Infuse, instil. 3. Cheer, animate, inspirit. *Anto.*, 1. Respire. 3. Discourage.

Instruction. *n.* 1. Direction, mandate. 2. Discipline, teaching, training, education. 3. Counsel, precept.

Insult. *n.* Affront, indignity, offence, outrage. *Anto.*, apology, favor.

Integrity. *n.* Honesty, honor, rectitude, probity, virtue. 2. Completeness, entirety. *Anto.*, dishonesty.

Intellect. *n.* Mind, sense, brains, reason, understanding. *Anto.*, body.

Intemperance. *n.* Excess, dissipation. *Anto.*, temperance.

Intense. *adj.* 1. Extreme, excessive. 2. Severe, close, strained. 3. Ardent, earnest. *Anto.*, slight, frivolous.

Intercede. *v.* Mediate, plead, arbitrate, interpose. *Anto.*, demand, require.

Intermission. *n.* Pause, rest, suspension, stop, interruption. *Anto.*, continuation.

Intermit. *v.* Subside, abate, cease. *Anto.*, continue, persist.

Interpose. *v.* 1. Remark. 2. Mediate, arbitrate, intercede.

Interpret. *v.* Construe, render. 2. Define, explain, elucidate, decipher.

Interrogate. *v.* Ask, examine, question, catechize. *Anto.*, answer.

Interval. *n.* Season, term space, spell, period. *Anto.*, continuation.

Intervening. *adj.* Interjacent, intermediate, interposed.

Intimidate. *v.* Daunt, frighten, alarm, scare, terrify. *Anto.*, embolden, encourage.

Intoxication. *n.* Drunkenness, inebriety, inebriation. *Anto.*, temperance, sobriety.

Intrepid. *adj.* Brave, daring, valorous, bold, dauntless. *Anto.*, cowardly.

Intrinsic. *adj.* 1. True, genuine, essential, real. 2. Inherent, inborn, native. *Anto.* 1. Counterfeit. 2. Alien, foreign.

Introductory. *adj.* Preliminary, prefatory.

Intrude. *v.* 1. Obtrude. 2. Trespass, infringe, encroach. *Anto.*, eject, expel, protrude.

Intrust. *v.* Consign, deliver, commit, confide. *Anto.*, distrust.

Invade. *v.* 1. Assault, attack, assail. 2. Infringe. *Anto.*, repel.

Invalid. *adj.* 1. Weak. 2. Null, void. *Anto.*, valid.

Invalid. *n.* Valetudinarian, sick person.

Invective. *n.* 1. Abuse, contumely. 2. Satire, sarcasm, lampoon. *Anto.*, panegyric.

Invent. *v.* 1. Devise. 2. Fabricate. 3. Imagine, originate, concoct. *Anto.*, copy, follow.

Invest. *v.* 1. Put at interest. 2. Array, clothe, dress.

Investigation. *n.* Scrutiny, examination, inquisition, inquiry.

Invigorate. *v.* Animate, fortify, strengthen. *Anto.*, weaken.

Invincible. *adj.* Unconquerable. 2. Insurmountable, insuperable. *Anto.*, vincible.

Invite. *v.* 1. Bid, summon, ask, request. 2. Attract, entice allure. *Anto.*, reject, delay, provoke.

Involve. *v.* Include, embrace. 2. Entangle, implicate. 3. Entwine, interweave. *Anto.*, simplify, analyze.

Irksome. *adj.* Weary, tiresome, tedious, wearisome. *Anto.*, pleasant.

Irony. *n.* Banter, mockery, raillery, ridicule. *Anto.*, praise.

Irrational. *adj.* 1. Brutish. 2. Unwise, silly, unreasonable, absurd. *Anto.*, rational.

Irrefragible. *adj.* Undeniable, irrefutable, indubitable, incontestable. *Anto.*, dubious.

Irritate. *v.* Fret, nettle, incense, provoke, exasperate. *Anto.*, soothe.

Irruption. *n.* Inroad, foray, raid, incursion.

Issue. *n.* 1. Offspring, children, progeny. 2. Conclusion, outcome, result. 3. Outlet, exit. *Anto.*, return, inlet.

Itinerant. *adj.* Wandering, nomadic, roving, travelling. *Anto.*, homely, settled.

J

Jade. *v.* Fatigue, weary, tire, fag, exhaust. *Anto.*, invigorate.

Jealousy. *n.* Suspicion, apprehension. *Anto.*, confidence.

Jest. *n.* Quip, crank, joke, sally, witticism.

Jocose. *adj.* Droll, witty, comical, sportive, facetious. *Anto.*, serious.

Jocund. *adj.* Joyful, blithe, jolly, gay, buxom. *Anto.*, sad, gloomy.

Join. *v.* 1. Combine, unite, couple. 2. Annex, add, attach. *Anto.*, separate.

Joke. *n. See Jest.*

Jollity. *n.* Merriment, gayety, fun, frolic, hilarity.

Journey. *n.* Excursion, trip, expedition, travel, tour.

Joy. *n.* Happiness, bliss. 2. Delight, gladness, glee, ecstacy, transport. *Anto.*, sorrow.

Joyous. *adj.* Glad, happy, gleeful, joyful, jolly. *Anto.*, sad.

Judgment. *n.* 1. Opinion, decision, estimate. 2. Sense, discernment, sagacity, wisdom.

Just. *adj.* 1. Exact, correct, true. 2. Merited, deserved. 3. Equitable. 4. Honest, fair, upright. *Anto.*, Unjust, unfair, fraudulent.

Justice. *n.* 1. Right, fairness, equity. 2. Judge. *Anto.*, injustice.

Justify. *v.* Warrant, defend, exculpate, vindicate. *Anto.*, criminate.

Justness. *n.* 1. Fairness, right, equity. 2. Accuracy, propriety. *Anto.*, 1. Criminality. 2. Impropriety.

Juvenile. *adj.* Childish, puerile, young, youthful. *Anto.*, manly.

K

Keen. *adj.* 1. Shrewd, sagacious, astute. 2. Earnest, zealous. 3. Severe, poignant, caustic. 4. Sharp. *Anto.*, dull.

Keep. *v.* 1. Retain. 2. Fulfil, observe. 3. Support, maintain. 4. Preserve, continue. 5. Celebrate. *Anto.*, dispense, distribute.

Kind. *adj.* Good, clement, humane, gentle, sympathetic, tender, affectionate. *Anto.*, cruel, unkind.

Kingly. *adj.* Royal, august, imperial, regal. *Anto.*, plebeian.

Knowledge. *n.* 1. Learning, lore, scholarship, erudition. 2. Notice. 3. Perception, judgment. *Anto.*, ignorance.

L

Labor. *n.* 1. Toil, work, effort, drudgery. 2. Child-birth, parturition. *Anto.* Idleness.

Lack. *n.* Need, deficiency, scarcity, insufficiency. *Anto.*, plenty.

Lament. *v.* Mourn, grieve, weep. *Anto.*, rejoice.

Lancinate. *v.* Sever, mangle, tear, lacerate. *Anto.*, heal, join.

Land. *n.* Soil, ground, earth, real property.

Landscape. *n.* Prospect, view, rural scene.

Language. *n.* Speech, expression, vernacular, dialect, tongue.

Languish. *v.* 1. Faint, wither, fade, droop. 2. Look tender. *Anto.*, invigorate, strengthen.

Larceny. *n.* Theft, pilfering, thievery, stealing.

Large. *adj.* 1. Bulky, big, great. 2. Broad, extensive 3. Full, abundant. *Anto.*, small.

Lascivious. *a.* Loose, unchaste, lustful, lewd, lecherous. *Anto.*, chaste, pure.

Last. *adj.* 1. Latest. 2. Ultimate, final. 3. Hindmost. 4. Extreme. *Anto.*, first.

Last. *adv.* The last time

Last. *v.* Remain, continue, endure. *Anto.*, perish, dissolve.

Latent. *adj.* Secret, unseen, veiled, concealed. *Anto.*, patent.

Laugh. *n.* Laughter, cachinnation, roar, guffaw. *Anto.*, sigh.

Laughable. *adj.* Droll, ridiculous, farcical, comical. *Anto.*, solemn.

Lavish. *adj* Extravagant, wasteful, profuse. *Anto.*, niggardly.

Lavish. *v.* Dissipate, waste, squander.

Law. *n.* 1. Rule, regulation, statute, enactment, ordinance. 2. Formula. 3. Code. 4. Jurisprudence. *Anto.*, lawlessness.

Lawful. *adj.* Legal, legitimate, constitutional. *Anto.*, unlawful.

Lawyer. *n.* Attorney, counsellor, advocate, counsel.

Lazy. *adj.* Idle, dronish, sluggish, inactive, slothful. *Anto.*, active, nimble

Lead. *n.* Direction, guidance, leadership. *Anto.*, following.

League. *n.* Combination, alliance, confederacy, union. *Anto.*, disunion, separation.

Lean. *v.* Incline. 2. Bear, recline, rest. 3. Tend.

Leave. *n.* Allowance, permission, license, liberty. *Anto.*, prohibition.

Lecture. *n.* Lesson, discourse, prelection.

Legacy. *n.* Gift, bequest, devise.

Legal. *adj. See Lawful.*

Legible. *adj.* Fair, readable, plain. *Anto.*, illegible.

Leisure. *n.* Spare time. *Anto.*, occupation.
Lengthen. *v.* 1. Extend, protract, prolong, continue. 2. Stretch, elongate. *Anto.*, shorten.
Leniency. *n.* Tenderness, mercy, mildness, clemency. *Anto.*, cruelty.
Letter. *n.* Note, epistle. 2. Alphabetical character.
Levity. *n.* Frivolity, giddiness, flightiness. *Anto.*, sobriety.
Liberality. *n.* 1. Bounty, generosity, beneficence, charity. 2. Toleration, candor. *Anto.*, closeness, meanness.
Liberate. *v.* Discharge, emancipate, release. *Anto.*, arrest.
Lie. *n.* Fib, untruth, falsehood. *Anto.*, truth.
Lie. *v.* 1. Falsify. 2. Recline. 3. Rest, remain. *Anto.*, 1. Verify.
Life. *n.* 1. Vitality. 2. Existence. 3. Memoir, biography. *Anto.*, death.
Light. *n.* 1. Daylight, sunrise. 2. Illumination. 3. Instruction. 4. Window. *Anto.*, darkness.
Light. *adj.* 1. Buoyant. 2. Easy. 3. Porous. 4. Unburdened. 5. Trifling, small. 6. Flimsy. 7. Airy, gay. *Anto.*, heavy.
Like. *adj.* Resembling, same, similar. *Anto.*, unlike.
Like. *v.* Choose, prefer, list, elect. *Anto.*, dislike.
Liking. *n.* Choice, preference, partiality. *Anto.*, impartiality.
Limited. *adj.* Confined, bounded, restrained, defined, restricted, circumscribed. *Anto.*, unlimited.
Lineage. *n.* Race, house, family, ancestry, line.
Link. *v.* Conjoin, tie, bind, connect, unite. *Anto.*, loosen.
Liquidation. *n.* Adjustment, discharge, settlement, payment.
Little. *adj.* 1. Small, diminutive, minute, tiny. 2. Scanty, inconsiderable. *Anto.*, noble, large.
Live. *adj.* 1. Existing, alive, living. 2. Alert, enterprising. *Anto.*, dead.
Live. *v.* 1. Exist. 2. Endure, continue. 3. Abide, dwell, reside. 4. Subsist. *Anto.*, die.
Lively. *adj.* 1. Agile, quick, nimble. 2. Sprightly, blithe, joyous. 3. Vigorous, piquant, strong. 4. Vivid. *Anto.*, slow, sluggish, languid.
Loathsome. *adj.* Offensive, disgusting, appalling, revolting. *Anto.*, delectable, pleasant.
Lofty. 1. High. 2. Dignified, sublime. 3. Haughty, proud, arrogant. *Anto.*, humble, modest.
Lonely. *adj.* 1. Companionless, lone, solitary. 2. Secluded, lonesome, isolated. *Anto.*, crowded.
Loosen. *v.* 1. Relax. 2. Loose, release. *Anto.*, tighten, tie, bind.
Lordly. *adj.* Dignified, majestic, lofty. 2. Proud, haughty. *Anto.*, meek, lowly, humble.
Lose. *v.* 1. Miss, forfeit. 2. Waste, squander. *Anto.*, 1. Find. 2. Gain, earn.
Loss. *n.* Deprivation, privation, forfeiture, waste, damage, detriment, destruction. *Anto.*, gain, profit.
Love. *v.* Like. *Anto.*, hate.
Love. *n.* Affection, attachment, fondness, liking. *Anto.*, hate.
Low. *adj.* 1. Depressed. 2. Mean, abject, disreputable. 3. Cheap. *Anto.*, 1. High. 2. Proud, worthy. 3. Dear.
Loyal. *adj.* Faithful, true. *Anto.*, disloyal, traitorous.
Lucid. *adj.* 1. Clear, transparent, pellucid, distinct, plain, bright, shining. *Anto.*, ambiguous, opaque, sombre.
Luck. *n.* Chance, hap, fortune, fate.
Lunacy. *n.* Derangement, madness, insanity, craziness. *Anto.*, sanity.
Luxuriate. *v.* 1. Revel, wanton. 2. Flourish. *Anto.*, 1. Chasten. 2. Wither.

M

Maceration. *n.* Soaking, softening, steeping. *Anto.*, drying.
Machination. *n.* Plot, stratagem, intrigue, conspiracy. *Anto.*, artlessness.
Mad. *adj.* 1. Crazy, delirious, insane. 2. Enraged, frantic, violent. *Anto.*, 1. Sane. 2. Pacified.
Magic. *n.* Enchantment, sorcery, necromancy.
Magnanimous. *adj.* *See Noble, Lofty.*
Magnificence. *n.* Grandeur, splendor, eclat. *Anto.*, squalor, poverty.
Main. *adj.* Principal, leading, chief. *Anto.*, subordinate, secondary.
Majority. *n.* 1. Manhood, full age. 2. Greater number. *Anto.*, minority.
Malefactor. *n.* Culprit, criminal, felon, convict.
Malice. *n.* Spite, rancor, hate, venom, malignity. *Anto.*, love, benevolence, benignity.
Mammoth. *adj.* *See Large.*
Manly. *adj.* Manful, brave, stout, strong, bold, noble, heroic. *Anto.*, effeminate.
Manifest. *adj.* Clear, apparent, patient, obvious, plain, glaring. *Anto.*, hidden, obscure, occult.
Manners. *n.* Breeding, behavior, deportment, habits, morals. *Anto.*, misbehavior, vulgarism.
Marry. *v.* Espouse, wed, take for husband or wife. *Anto.*, divorce.
Mask. *v.* Disguise, shroud, screen, veil, hide, cloak. *Anto.*, display.
Matchless. *adj.* Excellent, inimitable, unrivaled, peerless, incomparable. *Anto.*, common, ordinary.
Matrimony. *n.* Wedlock, marriage, nuptial state. *Anto.*, spinsterhood, bachelorhood.
Mean. *v.* 1. Purpose, intend, design. 2. Denote, imply, signify.
Mean. *adj.* 1. Average, middle, medium. 2. Miserly, stingy, base, surly, grumbling, poor, petty, wretched. *Anto.*, 1. Extreme. 2. Noble, lofty.
Meek. *adj.* Modest, humble, mild, gentle, submissive. *Anto.*, bold.
Meekness. *n.* Modesty, humility, gentleness, mildness, submissiveness. *Anto.*, boldness, hardihood.
Melancholy. *n.* Depression, gloom, sadness, dejection, despondency. *Anto.*, joy, buoyancy.
Memory. *n.* 1. Remembrance, recollection. 2. Reputation, renown, fame. *Anto.*, forgetfulness, oblivion.
Mental. *adj.* Ideal, rational, intellectual, metaphysical. *Anto.*, physical.
Mercy. *n.* Mildness, compassion, clemency, lenity. *Anto.*, harshness, implacability.
Meritorious. *adj.* Good, worthy, deserving, excellent. *Anto.*, unworthy.
Merry. *adj.* Gay, gleeful, mirthful, joyful, hilarious. *Anto.*, sad, sorrowful.
Mighty. *adj.* 1. Able, strong, puissant. 2. Effective, forcible. 3. Immense, vast, stupendous. *Anto.*, feeble, small.
Mind. *n.* 1. Reason, intellect, understanding. 2. Inclination, desire.
Minority. *n.* 1. Nonage, infancy, pupilage, childhood. 2. Smaller number. *Anto.*, majority.
Misadventure. *n.* Misfortune, mishap, reverse, mischance. *Anto.*, adventure.
Mischief. *n.* 1. Trouble. 2. Detriment, harm, hurt, evil, injury. *Anto.*, benefit, advantage, utility.
Miserable. *adj.* 1. Depressed, unhappy, affected, forlorn. 2. Abject, mean, valueless. *Anto.*, happy, lucky, lofty.
Moderate. *adj.* 1. Mild, judicious, reasonable. 2. Frugal, sparing. *Anto.*, immoderate, extravagrant.
Modern. *adj.* Late, new, novel, recent. *Anto.*, ancient, old.
Modest. *adj.* 1. Humble, unpretending. 2. Moderate. 3. Chaste, pure. *Anto.*, bold, lofty, immodest.
Morality. *n.* 1. Goodness, virtue. 2. Ethics, morals. *Anto.*, immorality.
Morbid. *adj.* Unsound, sickly, unhealthy, vitiated. *Anto.*, sound, healthy.
Morning. *n.* Daybreak, dawn, forenoon. *Anto.*, evening.
Mortal. *adj.* Deadly, fatal. 2. Human, *Anto.*, immortal.
Mortal. *n.* Human, man. *Anto.*, immortal.
Mundane. *adj.* Worldly, earthly, terrestrial. *Anto.*, heavenly.
Murmur. *n.* 1. Whisper, muttering. 2. complaint. *Anto.* 1. Shout. 2. Commendation.
Muse. *v.* Think, contemplate, reflect, ponder, meditate, brood.
Music. *n.* Harmony, symphony, melody, science of harmonics.
Mutual. *adj.* Interchanged, reciprocal, correlative. *Anto.*, sole, solitary.
Mystify. *v.* Puzzle, perplex, baffle, bewilder, pose. *Anto.*, clear, explain.

N

Naked. *adj.* 1. Nude, bare, undressed. 2. Defenceless, unprotected. 3. Sheer, simple. *Anto.*, clad, covered.
Natural. 1. Regular normal. 2. Native, original, characteristic. *Anto.*, unnatural.
Near. *adj.* Close nigh, adjacent 2. Familiar, allied, intimate. 3. Impending, imminent. *Anto.*, far.
Nerve. *v.* Brace, fortify, strengthen, invigorate. *Anto.*, weaken.
Never. *adv.* Not ever. *Anto.*, ever, always.
New. *adj.* Fresh, novel. 2. Modern, recent. *Anto.*, old, ancient.
Nice. *adj.* 1. Precise, exact, critical. 2. Subtle, fine. 3. Delicate, dainty, delicious. *Anto.*, 1. Careless. 2. Coarse 3. Unpleasant.
Niggardly. *adj.* Mean, mercenary, stingy, miserly, illiberal, avaricious. *Anto.*, generous, open.
Nimble. *adj.* Quick, agile, alert, sprightly. *Anto.*, slow, lazy.
Noble. *adj.* 1. Dignified, worthy, superior, exalted. 2. Grand, magnificent. *Anto.*, ignoble.
Noise. *n.* Sound, din, clatter, uproar, clamor. *Anto.*, silence.
Nominate. *a* Name, propose, designate.
Note. *n.* 1. Minute, memorandum. 2. Comment, remark. 3. Celebrity, renown. 4. Bill, promissory note.
Note. *v.* 1. Record. 2. Notice, observe, heed. 3. Denote, designate.
Noted. *adj.* *See Illustrious.*
Notion. *n.* *See Idea.*
Notorious. *adj.* 1. Conspicuous. 2. Open, obvious, well-known. *Anto.*, unknown.
Novel. *adj.* *See New.*
Novel. *n.* Tale, story, romance, fiction.
Noxious. *adj.* Harmful, hurtful, deleterious, baleful, deadly. *Anto.*, wholesome.
Number. *n.* 1. Numeral, figure, digit. 2. Multitude, many.
Nuptials. *n.* Wedding, marriage. *Anto.*, divorce.
Nurture. *n.* Discipline, training, breeding, schooling, education.
Nutriment. *n.* Food, diet, provision, sustenance, nutrition, nourishment. *Anto.*, poison.
Nutritious. *adj.* Sustaining.
Nourishing. *adj.* Wholesome, strengthening. *Anto.*, noxious.

O

Obdurate. *adj.* Obstinate, stubborn, callous, unfeeling. *Anto.*, flexible.
Object. *n.* End, purpose, aim, design. 2. Mark. *Anto.*, subject.
Oblige. 1. Please, favor, accommodate, serve. 2. Obligate. 3. Compel, coerce. *Anto.*, disoblige.
Oblivion. *n.* Forgetfulness, amnesty. *Anto.*, remembrance.
Obscure. *adj.* Dark, dim, vague, indistinct. 2. Humble, unknown. *Anto.*, 1. Light, plain, clear. 2. Noted.

Obscure. *v.* Cloud, darken, shade, eclipse. *Anto.*, clear, illuminate.
Obsequies. *n.* Funeral rites, exequies.
Obsolete. *adj.* Disused, antiquated, neglected. *Anto.*, new, fashionable.
Obvious. *adj.* Plain, clear, manifest, visible, apparent. *Anto.*, hidden.
Occasional. *adj.* Casual, irregular, incidental. *Anto.*, regular.
Occupation. *n.* 1. Calling, business, pursuit, profession. 2. Use, possession. *Anto.*, 1. Idleness. 2. Forfeiture.
Occupy. *v.* Hold, possess, use. *Anto.*, vacate.
Occurrence. *n.* Adventure, incident, contingency.
Odor. *n.* Scent, perfume, fragrance.
Offend. *v.* Displease, annoy, vex. *Anto.*, please.
Offence. *n.* Crime, indignity, injury, insult, misdeed, transgression, trespass, outrage. *Anto.*, favor, obligation.
Offensive. *adj.* Abusive, impertinent, injurious, insulting, insolent, obnoxious, opprobrious, rude, scurrilous. *Anto.*, pleasant.
Offering. *n.* 1. Oblation, presentation, gift. 2. Sacrifice.
Office. *n.* 1. Charge, trust, duty, service. 2. Situation, berth, station.
Officious. *adj.* Active, busy, forward, intrusive, obtrusive. *Anto.*, modest.
Offspring. *n.* Children, issue, descendants, posterity. *Anto.*, ancestry.
Only. *adj.* Alone. *adv.* Barely, merely, simply, singly, solely.
Opaque. *adj.* 1. Dark, obscure. 2. Not transparent, impervious to light. *Anto.*, transparent.
Open. *a.* 1. Unclosed, extended. 2. Clear, public. 3. Fair, candid, unreserved. 4. Liberal. 5. Unsettled. *Anto.*, closed.
Opening. *n.* Aperture, cavity, hole, fissure. *Anto.*, solid.
Operation. *n.* Action, agency, surgical act, process.
Opinion. *n.* Notion, view, judgment, belief. 2. Estimate.
Opinionated. *adj.* Conceited, egotistical, obstinate. *Anto.*, modest.
Opponent. *n.* Adversary, antagonist, enemy, foe. *Anto.*, friend, ally.
Opposite. *adj.* Adverse, contrary, inimical, repugnant. *Anto.*, alike, congenial.
Opprobrious. *adj.* Abusive, insulting, insolent, offensive, scurrilous. *Anto.*, eulogistic.
Opprobrium. *n.* Disgrace, ignominy, infamy. *Anto.*, eminence.
Option. *n.* Choice, election.
Oration. *n.* Address, speech, discourse, harangue.
Ordain. *v.* Appoint, order, prescribe, invest.
Order. *n.* 1. Class, degree, fraternity, method, rank, series, succession. 2. Command, injunction, mandate, precept. *Anto.*, disorder.
Orderly. *adj.* 1. Methodical, systematic, regular, quiet. 2. *n.* Soldier. *Anto.*, irregular.
Ordinary. *adj.* 1. Usual, common, habitual. 2. Homely, plain, ugly. 3. Inferior, vulgar. *Anto.*, extraordinary.
Origin. *n.* 1. Cause, occasion. 2. Spring, beginning, source. *Anto.*, end.
Original. *adj.* First, primary, primitive, pristine. *Anto.*, copied.
Ornament. *v.* Adorn, embellish, beautify, decorate. *Anto.*, spoil, wreck, destroy.
Ornate. *adj.* Adorned, bedecked, decorated, embellished, garnished. *Anto.*, unadorned.
Ostensible. *adj.* Colorable, feasible, professed, plausible, specious, apparent, declared, manifest. *Anto.*, real.
Ostentation. *n.* Show, display, flourish, pomposity. *Anto.*, plainness.
Outlive. *v.* *See Survive.*
Outrage. *v.* Abuse, maltreat, offend, insult, shock. *Anto.*, honor, praise.
Outrage. *n.* Affront, offence, abuse, indignity, insult. *Anto.*, favor, obligation.
Outward. *adj.* Extraneous, exterior, external, extrinsic, outer. *Anto.*, inward.
Oval. *adj.* Egg-shaped, elliptical.
Overbearing. *adj.* Haughty, arrogant, lordly, imperious, domineering, dictatorial. *Anto.*, gentle.
Overcome. *v.* Conquer, subdue, surmount, vanquish. *Anto.*, surrender.
Overflow. *v.* 1. Flow, deluge, inundate. 2. Overrun, overspread.
Oversight. *n.* 1. Blunder, mistake, error, inadvertency. 2. Management, supervision, control. *Anto.*, correction.
Overthrow. *v.* 1. Defeat, overcome, conquer, vanquish. 2. Upset, overturn, subvert. 3. Ruin, molest. *Anto.*, surrender, yield.
Overwhelm. *v.* 1. Overflow. 2. Defeat, conquer, vanquish, subdue.
Owner. *n.* Holder, possessor, proprietor.

P

Pacify. *v.* 1. Appease, conciliate. 2. Calm, still, compose, tranquilize, quiet, quell. *Anto.*, excite.
Pain. *n.* 1. Ache, distress, suffering, pang, anguish, agony. 2. Penalty. 3. Uneasiness, sorrow, grief, woe. *Anto.*, pleasure.
Paint. *v.* 1. Depict, delineate, portray, pencil, sketch. 2. Color. 3. Represent.
Pair. *n.* Brace, couple. *Anto.*, single.
Pale. *adj.* 1. Colorless, wan, whitish, ashy, pallid. 2. Dim, sombre. *Anto.*, florid.
Palliate. *v.* Cover, extenuate, gloss, varnish. *Anto.*, accuse, charge.
Palpable. *adj.* Obvious, evident, manifest, plain, glaring. 2. Tangible. *Anto.*, occult.
Palpitate. *v.* Pulsate, throb, flutter, go pit-a-pat. *Anto.*, quiet.
Paltry. *adj.* 1. Little, small, unimportant, petty, miserable, trivial. 2. Abject, base, mean, pitiful, contemptible. *Anto.*, worthy, great, noble.
Panegyric. *n.* Encomium, praise, eulogy. *Anto.*, condemnation.
Pang. *n.* *See Pain.*
Parasite. *n.* Flatterer, sycophant, hanger-on.
Pardon. *n.* Grace, forgiveness, remission, absolution, mercy, amnesty. *Anto.*, implacability.
Parentage. *n.* Birth, lineage, pedigree, stock.
Parody. *n.* Burlesque, travesty, caricature.
Parsimonious. *adj.* Close, mean, stingy, miserly, penurious, covetous, sordid. *Anto.*, generous.
Partial. *adj.* 1. Incomplete, imperfect. 2. Unfair, warped, biased, prejudiced, unjust. *Anto.*, complete.
Part. *n.* 1. Piece, portion, fraction. 2. Element, ingredient. 3. Lot. 4. Charge, function.
Particle. *n.* Grain, jot, tittle, iota, bit, atom, molecule. *Anto.*, mass.
Particular. *adj.* Appropriate, circumstantial, distinct, exact, exclusive, nice, peculiar, punctual, specific. *Anto.*, careless, inappropriate.
Particularly. *adv.* Chiefly, distinctly, especially, specifically, principally. *Anto.*, generally.
Partisan. *n.* Supporter, adherent, follower, disciple, champion, votary. *Anto.*, opponent.
Partly. *adv.* In part. *Anto.*, wholly.
Partner. *n.* 1. Colleague, associate, sharer, participator, partaker. 2. Member of a firm.
Passion. *n.* 1. Ardor, emotion, fervor, zeal. 2. Love, affection, fondness, attachment, devotion. 3. Anger, wrath, fury. 4. Pathos. *Anto.*, quietude, placidity, languor.
Passive. *adj.* Calm, patient, resigned, submissive, unresisting. *Anto.*, rebellious.
Patent. *adj.* Open, plain, apparent, obvious. *Anto.*, latent.
Pathetic. *adj.* Touching, affecting, moving, tender, melting, plaintive. *Anto.*, ludicrous.
Patience. *n.* Resignation, endurance, fortitude, sufferance. *Anto.*, impatience.
Patient. *adj.* Composed, calm, enduring, passive. *n.* An invalid. *Anto.*, fretful.
Patrician. *n.* Nobleman, aristocrat. *Anto.*, plebeian.
Patronize. *v.* Aid, favor, support, help, befriend. *Anto.*, abuse, condemn.
Pause. *v.* 1. Stop, cease, desist, delay, rest, stay. 2. Waver, hesitate. *Anto.*, continue.
Pay. *n.* Compensation, reward, requital, wages, salary, hire.
Peaceable. *adj.* Calm, gentle, pacific, mild, quiet, serene, tranquil, undisturbed. *Anto.*, turbulent.
Peaceful. *adj.* 1. Still, quiet, undisturbed, calm, placid, tranquil, serene. 2. Mild, friendly. *Anto.*, disturbed.
Peculiar. *adj.* Particular, singular, special, characteristic, rare, exceptional.
Peevish. *adj.* Captious, cross, fretful, irritable, petulant. *Anto.*, patient.
Penalty. *n.* Chastisement, fine, forfeiture, mulct, punishment. *Anto.*, reward.
Penetrating. *adj.* Discerning, intelligent, sagacious, acute, keen, shrewd. *Anto.*, dull.
Penitence. *n.* Compunction, remorse, contrition, repentance. *Anto.*, impenitence.
Penniless. *adj.* Poor, destitute, needy, indigent, reduced, pinched, distressed. *Anto.*, rich, moneyed.
Penurious. *adj.* Beggarly, miserly, niggardly, parsimonious, sparing. *Anto.*, generous.
Penury. *n.* Indigence, need, poverty, want. *Anto.*, affluence.
Perceive. *v.* 1. Notice, see, discover, discern. 2. Feel. 3. Understand, know. *Anto.*, miss.
Perception. *n.* Conception, sensation, idea, notion, sentiment.
Peremptory. *adj.* Absolute, arbitrary, despotic, dogmatical, positive. *Anto.*, vacillating.
Perfect. *adj.* 1. Finished, complete, elaborate. 2. Blameless, pure, holy. *Anto.*, imperfect.
Perfidious. *adj.* Faithless, treacherous. *Anto.*, faithful.
Perforate. *v.* Bore, pierce, penetrate. *Anto.*, plug, fill.
Perform. *v.* Accomplish, achieve, effect, execute, fulfil, produce. *Anto.*, fail.
Perfume. *n.* Aroma, fragrance, balminess, incense. *Anto.*, stench.
Peril. *n.* Venture, risk, danger, hazard, jeopardy. *Anto.*, safety.
Period. *n.* Circuit, date, age, epoch, era.
Perjure. *v.* *See Forswear.*
Permanent. *adj.* Fixed, abiding, lasting, stable, enduring, steadfast, immutable. *Anto.*, unstable.
Permit. *v.* Allow, suffer, consent, admit, tolerate, yield. *Anto.*, refuse.
Pernicious. *adj.* Destructive, hurtful, mischievous, noisome, noxious. *Anto.*, healthful.
Perpetual. *adj.* Continuous, constant, incessant, unceasing, uninterrupted. *Anto.*, transient.
Perplex. *v.* 1. Puzzle, embarrass, bewilder, confound. 2. Involve, entangle, complicate. *Anto.*, explain.
Persevere. *v.* Continue, insist, persist, prosecute, pursue. *Anto.*, unstable.
Perspicuity. *n.* Transparency, clearness, translucency. *Anto.*, obscurity.
Persuade. *v.* 1. Convince. 2. Influence, induce, lead, incite, impel. *Anto.*, dissuade.
Pertinent. *adj.* Apposite, appropriate. *Anto.*, improper.
Perverse. *adj.* Cross, crooked, forward, stubborn, untractable. *Anto.*, yielding.
Pestilential. *adj.* Contagious, epidemical, infectious, mischievous. *Anto.*, wholesome.
Petition. *n.* Application, appeal, prayer, suit, entreaty, supplication.
Picture. *n.* Effigy, likeness, representation.
Pious. *adj.* Religious, devout, holy, saintly, godly. *Anto.*, impious.

Pique. *n.* Offence, resentment, umbrage, grudge. *Anto.*, pleasure, friendliness.
Pique. *v.* 1. Urge, spur, incite, instigate. 2 Displease, offend, irritate, nettle, exasperate. *Anto.*, please.
Pitiless. *adj.* Unmerciful, relentless, ruthless, cruel, unfeeling, inexorable. *Anto.*, merciful.
Pity. *n.* Sympathy, compassion, fellow-feeling. *Anto.*, cruelty.
Place. 1. *n.* Ground, post, position, seat, site, situation, space. 2. *adj.* Dispose, lay order, put, set. *Anto.*, 2. Displace.
Placid. *adj.* *See Peaceful.*
Plague. *v.* Tease, vex, trouble, fret, bother. *Anto.*, please.
Pleasant. *adj.* 1. Agreeable, pleasing, delightful. 2. Witty, sportive, amusing. 3. Cheerful, lively, vivacious. *Anto.*, disagreeable.
Please. *v.* Delight, gratify, humor, satisfy. *Anto.*, displease.
Pleasure. *n.* 1. Comfort, enjoyment, gratification, joy. 2. Luxury, voluptuousness. 3. Choice, will, preference. *Anto.*, pain.
Plebeian. *adj.* Mean, base, vulgar, ignoble. *Anto.*, patrician.
Pledge. *n.* Deposit, earnest, hostage, security, pawn.
Plentiful. *adj.* Abundant, ample, copious, exuberant, plenteous. *Anto.*, scarcity.
Pliable. *adj.* 1. Limber, flexible, supple, lithe. 2. Compliant, tractable. *Anto.*, inflexible.
Pliant. *adj.* Bending, flexible, pliable, lithe, limber, supple, yielding. *Anto.*, stiff.
Plight. *v.* Case, condition, predicament, situation, state.
Plot. *v.* Scheme, concoct, project, devise, brew, hatch.
Pluck. *n.* Resolution, courage, spirit, mettle, nerve, fortitude. *Anto.*, cowardice.
Polished. *adj.* 1. Refined, accomplished, polite, cultivated, elegant. 2. Burnished. 3. Attic, classic. *Anto.*, rough, coarse.
Polite. *adj.* Refined, accomplished, genteel, courteous, courtly, polished, urbane. *Anto.*, impolite.
Politeness. *n.* Affability, civility, courteousness, courtesy, good manners. *Anto.*, impoliteness.
Politic. *adj.* Artful, civil, cunning, prudent. *Anto.*, impolitic.
Pollute. *n.* Contaminate, corrupt, defile, infect, vitiate. *Anto.*, purify.
Pomp. *n.* Display, parade, show, pageantry, state, ostentation.
Pompous. *adj.* Dignified, lofty, magisterial, magnificent, stately, showy, ostentatious. *Anto.*, modest.
Ponder. *v.* Consider, muse, reflect, think.
Portion. *n.* Division, dower, fortune, part, quantity, share. *Anto.*, whole.
Position. *n.* Place, post, situation, station.
Positive. *adj.* Certain, confident, dogmatical, real. *Anto.*, doubtful.
Possess. *v.* Have, hold, occupy. *Anto.*, dispossess, distrain.
Posterior. *adj.* 1. Hind, rear, back. 2. Following, succeeding, subsequent, ensuing. *Anto.*, anterior.
Postpone. *v.* Adjourn, defer, delay, procrastinate. *Anto.*, expedite.
Posture. *n.* Action, attitude, gesture, position.
Potent. *adj.* Strong, influential, cogent, powerful, mighty, puissant. *Anto.*, weak.
Poverty. *n.* Indigence, need, penury, want. *Anto.*, wealth.
Powerful. *adj.* Mighty, influential, potent, strong, vigorous. *Anto.*, weak.
Practicable. *adj.* Feasible, possible, practical. *Anto.*, impracticable.
Practice. *n.* Custom, habit, manner, use. *Anto.*, prodigy.
Praise. *n.* 1. Worship, homage. 2. Approval, commendation, laudation, applause, encomium. 3. Eulogy, panegyric. *Anto.*, blame.
Praise. *v.* 1. Exalt, glorify. 2. Approve, applaud, commend. 3. Eulogize, extol. *Anto.*, censure.
Prayer. *n.* Entreaty, petition, suit, request, supplication. *Anto.*, anathema.
Precarious. *adj.* Doubtful, equivocal, dubious, uncertain. *Anto.*, certain.
Precedence. *n.* Pre-eminence, preference, priority. *Anto.*, subsequence
Precedent. 1. *n.* Example. 2. *Adj.* Former, antecedent. *Anto.*, 2. Subsequent.
Preceding. *adj.* Antecedent, anterior, foregoing, former, previous, prior. *Anto.*, following.
Precept. *n.* Doctrine, law, rule, injunction, mandate, maxim, principle.
Precious. *adj.* Costly, uncommon, valuable. *Anto.*, common.
Precise. *adj.* 1. Accurate, correct, exact. 2. Nice. 3. Stiff, strict. *Anto.*, not exact.
Preclude. *v.* Hinder, obviate, prevent. *Anto.*, assist.
Preconcerted. *adj.* Premeditated, predetermined, considered beforehand. *Anto.*, unconsidered.
Precursor. *n.* Forerunner, harbinger, messenger. *Anto.*, follower, disciple.
Predicament. *n.* 1. Condition, plight, situation. 2. Class, state.
Predict. *v.* Foretell, prophesy, prognosticate.
Predominate. *adj.* Overruling, supreme, prevalent, prevailing.
Preface. *n.* Introduction, prelude, proem. *Anto.*, conclusion, peroration.
Prefer. *v.* Advance, choose, forward, encourage, promote. 2. Offer, present.
Preference. *n.* Choice, precedence, priority.
Preferment. *n.* Advancement, preference, promotion. *Anto.*, abasement.
Prejudice. *n.* 1. Bias, detriment, disadvantage, hurt, injury. 2. Prepossession. *Anto.*, justice.
Preliminary. *adj.* 1. Antecedent, introductory, preparatory, previous. 2. A first step.
Prepare. *v.* Equip, make ready, fit, qualify. *Anto.*, retard.
Preponderate. *v.* 1. Outweigh, overbalance. 2. Prevail.
Proficiency. *n.* Advancement, progress, improvement. *Anto.*, deficiency.
Profit. *n.* Advantage, benefit, emolument, gain. *Anto.*, loss.
Profligate. *adj.* *See Abandoned.*
Profuse. *adj.* Extravagant, lavish, prodigal. *Anto.*, niggardly.
Progeny. *n.* Issue, offspring, race.
Progress. *n.* Advancement, gradation, motion, proficiency. *Anto.*, retrogression.
Project. *n.* Design, plan, scheme.
Prolific. *adj.* Fertile, fruitful, productive. *Anto.*, barren, sterile.
Prolix. *adj.* Diffuse, long, tedious. *Anto.*, brief, laconic.
Prolong. *v.* Belay, extend, postpone, procrastinate, protract, retard. *Anto.*, shorten.
Prominent. *adj.* Conspicuous, protuberant, eminent, projecting. *Anto.*, unnoticeable.
Promiscuous. *adj.* Mingled, indiscriminate, common, confused. *Anto.*, select.
Promise. *n.* Word, assurance, engagement, pledge.
Promote. *v.* Advance, encourage, forward, prefer. *Anto.*, discourage.
Prompt. *adj.* 1. Early, punctual, timely. 2. Apt, ready, quick. *Anto.*, unready, dilatory.
Pronounce. *v.* Affirm, articulate, declare, speak, utter.
Proof. *n.* 1. Argument. 2. Demonstration, evidence, testimony.
Propagate. *v.* Circulate, diffuse, disseminate, increase, multiply. *Anto.*, diminish, prune.
Propensity. *n.* Inclination, proneness, bias, tendency.
Proper. *adj.* 1. Fitting, appropriate, suitable, becoming, seemly, right. 2. Particular, specific, not common. *Anto.*, wrong.
Propitiate. *v.* Appease, reconcile, atone, conciliate. *Anto.*, provoke.
Propitious. *adj.* 1. Auspicious, favorable. 2. Kind, merciful. *Anto.*, unfavorable.
Proportion. *n.* Form, rate, relation, ratio, size, symmetry.
Proportionate. *adj.* Adequate, equal, commensurate. *Anto.*, unequal.
Propose. *v.* Bid, intend, offer, purpose, tender.
Prosecute. *v.* 1. Arraign, accuse. 2. Continue, pursue. *Anto.*, exculpate, pardon.
Prospect. *n.* Landscape, survey, view.
Prospective. *adj.* Foreseeing, forward, future.
Prosperity. *n.* Welfare, success, thrift, luck, happiness. *Anto.*, loss, poverty.
Prosperous. *adj.* Flourishing, fortunate, lucky, successful. *Anto.*, unsuccessful.
Protect. *v.* Cherish, defend, foster, guard, patronize, shelter, shield. *Anto.*, abandon.
Protract. *v.* Defer, delay, postpone, prolong, retard. *Anto.*, contract.
Protracted. *adj.* Continued, extended, prolonged, drawn out. *Anto.*, shortened.
Proud. *adj.* Arrogant, assuming, conceited, haughty, vain. *Anto.*, unassuming.
Proverb. *n.* Adage, aphorism, maxim, apothegm, by-word, saw, saying.
Provide. *v.* Furnish, prepare, procure, supply.
Provident. *adj.* Careful, economical, cautious, frugal, far-sighted, prudent. *Anto.*, prodigal.
Provisions. *n.* Subsistence; food, victuals, viands, bread, provender.
Proviso. *n.* Condition, stipulation.
Provoke. *v.* 1. Irritate, anger, offend, affront, enrage, exasperate, infuriate. 2. Awaken, arouse, excite, stimulate, inflame. *Anto.*, propitiate.
Proxy. *n.* Deputy, representative, agent, substitute.
Prudence. *n.* Carefulness, discretion, forethought, judgment, wisdom. *Anto.*, indiscretion.
Prudish. *adj.* Coy, demure, reserved, over-modest. *Anto.*, brazen, immodest.
Publish. *v.* 1. Announce, declare, proclaim, herald, advertise. 2. Issue, emit. *Anto.*, suppress.
Puerile. *adj.* Boyish, childish, juvenile. *Anto.*, manly.
Pull. *v.* Drag, draw, gather, hale, haul, pluck, lug. *Anto.*, push.
Pulsation. *n.* Beat, beating, throb, throbbing.
Pulverize. *v.* Bruise, grind, comminute, triturate.
Punctual. *adj.* *See Prompt.*
Punish. *v.* Correct, discipline, chastise, castigate, whip, scourge. *Anto.*, reward.
Pure. *adj.* 1. Clear, clean, unsullied, undefiled, spotless, untarnished, immaculate. 2. True, innocent, sinless. 3. Chaste, modest. 4. Unmixed, genuine. *Anto.*, impure.
Purpose. *n.* Object, aim, intent, end, design.
Pursue. *v.* Chase, continue, follow, prosecute, persist. *Anto.*, escape.
Puzzle. *v.* *See Perplex.*
Puzzle. *n.* 1. Mystery, riddle, enigma. 2. Embarrassment, perplexity, nonplus.

Q

Quack. *n.* Impostor, pretender, humbug, charlatan. *Anto.*, savant.
Quail. *v.* Shrink, blanch, quake, cower, tremble. *Anto.*, brave.
Qualified. *adj.* Adapted, competent, fitted. *Anto.*, incompetent.
Qualify. *v.* Adapt, equip, furnish, fit, modify, prepare, temper.
Quality. *n.* Rank, property, distinction, accomplishment, attribute.
Quandary. *n.* Puzzle, difficulty, perplexity, strait, nonplus, dilemma.
Quarrel. *n.* Disagreement, wrangle, squabble, contention, dissension, strife, altercation, brawl. *Anto.*, agreement.
Queer. *adj.* Odd, singular, droll, strange, whimsical, unique, quaint. *Anto.*, usual, ordinary, customary.

Query. *n.* Inquiry, question, interrogatory. *Anto.*, answer.
Question. *n.* *See Query.*
Question. *v.* 1. Ask, enquire, examine, interrogate, catechize. 2. Doubt, dispute, controvert. *Anto.*, reply.
Questionable. *adj.* Doubtful, suspicious. *Anto.*, authentic.
Quick. *adj.* 1. Brisk, active, prompt, agile. 2. Rapid, swift. 3. Clever, sharp, shrewd, acute, keen, discerning. *Anto.*, dull, slow.
Quiet. *adj.* Still, resting, dormant, motionless, quiescent. *Anto.*, turbulent.
Quit. *v.* 1. Leave, withdraw, vacate. 2. Resign, abandon, forsake. 3. Clear, acquit, absolve.
Quiver. *v.* Shake, tremble, shudder, shiver, quake.
Quota. *n.* Share, portion, allotment, contingent, proportion.
Quotation. *n.* Extract, excerpt, selection, citation.
Quote. *v.* Adduce, cite. *Anto.*, originate.

R

Rabble. *n.* Mob, rout, herd.
Race. *n.* Breed, course, family, generation, lineage, progress. *Anto.*, mongrel.
Radiance. *n.* Brightness, brilliancy, lustre, splendor, effulgence. *Anto.*, gloom.
Radical. *adj.* 1. Entire, complete, thorough, perfect. 2. Fundamental, original, organic. 3. Simple, primitive, underived. *Anto.*, superficial.
Rage. *n.* Anger, choler, fury, violence. *Anto.*, calm.
Raise. *v.* Advance, collect, elevate, heighten, erect, exalt, propagate. *Anto.*, lower.
Rally. *v.* 1. Banter, deride, mock, ridicule. 2. Collect. *Anto.*, 1. Praise. 2. Scatter.
Random. *adj.* Casual, chance, fortuitous. *Anto.*, chosen, destined.
Rank. *n.* Class, degree, position.
Ransom. *n.* Free, redeem, manumit. *Anto.*, imprison.
Rapacious. *adj.* Greedy, ravenous, voracious. *Anto.*, generous.
Rapidity. *n.* Agility, celerity, fleetness, speed, swiftness, velocity. *Anto.*, sloth.
Rapt. *adj.* Charmed, delighted, enraptured, fascinated, entranced, transported, ravished. *Anto.*, dejected.
Rapture. *n.* Ecstacy, transport. *Anto.*, dejection.
Rare. *adj.* 1. Excellent, incomparable. 2. Raw. 3. Thin. 4. Scarce, singular, uncommon. *Anto.*, 1, 4. Common. 3. Dense.
Rash. *adj.* Impulsive, hasty, heedless, headlong, reckless, precipitate. *Anto.*, calculating.
Rate. *n.* Assessment, degree, proportion, price, quota, ratio, value.
Rational. *adj.* 1. Sane. 2. Sensible, wise, intelligent. 3. Reasonable. *Anto.*, irrational.
Ravenous. *adj.* Greedy, rapacious, voracious. *Anto.*, generous.
Refer. *v.* 1. Allude, suggest, hint, intimate. 2. Appeal. 3. Bear, bring.
Refined. *adj.* 1. Accomplished, cultured, polite, polished, elegant, courtly. 2. Purified. 3. Pure, chaste, classic, exquisite, Attic. *Anto.*, coarse.
Reflect. *v.* Consider, censure, muse, ponder, reproach, think.
Reform. *v.* Amend, better, correct, improve, rectify. *Anto.*, injure, mar.
Refractory. *adj.* Contumacious, perverse, ungovernable, unruly. *Anto.*, obedient.
Refrain. *v.* Abstain, forbear, spare.
Refresh. *v.* Cool, renew, invigorate, revive. *Anto.*, tire.
Refute. *v.* Disprove, oppugn. *Anto.*, accept.
Regale. *v.* Entertain, feast, gratify, refresh.
Regard. *n.* 1. Concern, esteem, respect, liking, affection. 2. Relation, reference. 3. Consideration, heed. *Anto.*, contempt.
Regardless. *adj.* Heedless, indifferent, negligent, unconcerned, unobservant. *Anto.*, Observant.
Region. *n.* 1. District, clime, territory. 2. Portion, part.
Regret. *v.* Complain, grieve, lament, repent. *Anto.*, rejoice.
Regulate. *v.* Adjust, direct, rule, dispose, govern, plan. *Anto.*, disorder.
Reiterate. *v.* Repeat again, quote, recite. *Anto.*, retract.
Rehearse. *v.* 1. Recapitulate. 2. Recite, repeat.
Reject. *v.* Refuse, repel, decline. 2. Discard. *Anto.*, accept.
Rejoice. *v.* Triumph, exult, glory. *Anto.*, lament.
Rejoinder. *n.* Answer, reply, replication, response.
Relevant. *adj.* Apposite, fit, pertinent, proper, suitable to the purpose. *Anto.*, irrelevant.
Reliance. *n.* Confidence, dependence, repose, trust. *Anto.*, suspicion.
Relieve. *v.* Aid, alleviate, assist, help, mitigate, succor. *Anto.*, injure, despoil.
Religious. *adj.* Devout, holy, pious. *Anto.*, profane.
Reluctant. *adj.* Disinclined, unwilling, indisposed, loth, averse. *Anto.*, willing.
Remain. *v.* Abide, await, continue, sojourn, stay, tarry. *Anto.*, depart.
Remainder. *n.* Remnant, residue, rest.
Remains. *n.* Leavings, relics, manes.
Remark. *n.* Annotation, observation, note, comment.
Reminiscence. *n.* Remembrance, recollection, memoir.
Remiss. *adj.* 1. Careless, negligent, inattentive. 2. Slow, slack, dilatory. *Anto.*, careful.
Remit. *v.* 1. Abate, relax. 2. Absolve, forgive, liberate, pardon. 3. Transmit.
Remorse. *n.* Compunction, sorrow, penitence, conviction. *Anto.*, callousness.
Renegade. *n.* 1. Turncoat, apostate.
Renew. *v.* Refresh, renovate, revive. *Anto.*, wear out.
Renounce. *v.* Abandon, abdicate, forego, quit, relinquish, resign. *Anto.*, keep.
Renovate. *v.* Restore, renew, revive, resuscitate.
Renown. *n.* Celebrity, fame, reputation, distinction. *Anto.*, infamy.
Renunciation. *n.* 1. Abandonment, surrender. 2. Abnegation, rejection, repudiation.
Repair. *v.* Recover, restore, retrieve. *Anto.*, destroy.
Reparation. *n.* Amends, restoration, restitution. *Anto.*, injury.
Repartee. *n.* Reply, retort.
Repeal. *v.* Abolish, abrogate, annul, cancel, destroy, revoke. *Anto.*, reënact.
Repel. *v.* Repulse, drive back. 2. Withstand, resist, confront, oppose, check. *Anto.*, attract.
Repetition. *adj.* Recital, tautology.
Replenish. *v.* Fill, refill, supply. *Anto.*, empty.
Repose. *n.* Ease, quiet, rest, sleep. *Anto.*, disquiet.
Reprehensible. *adj.* Blamable, censurable, culpable, reprovable. *Anto.*, commendable.
Reproach. *v.* Blame, condemn, censure, reprove, upbraid. *Anto.*, commend.
Reproof. *n.* Blame, censure, reprehension. *Anto.*, praise.
Reprove. *v.* Chide, rebuke, reprimand. *Anto.*, praise.
Repugnance. *n.* Antipathy, aversion, dislike, hatred. *Anto.*, liking.
Repugnant. *adj.* Adverse, contrary, hostile, inimical, opposite, distasteful. *Anto.*, similar, homogeneous.
Repulsion. *n.* Power of repelling, resistance. *Anto.*, attraction.
Reputation. *n.* Character, renown, credit, fame, honor, repute. *Anto.*, notoriety.
Request. *v.* Ask, beg, beseech, demand, entreat, implore, solicit. *Anto.*, grant.
Requisite. *adj.* Essential, expedient, necessary. *Anto.*, unnecessary.
Requite. *v.* 1. Compensate, reward, reciprocate. 2. Avenge.
Research. *n.* Examination, enquiry, investigation, careful scrutiny.
Resemblance. *n.* Likeness, similarity. *Anto.*, unlikeness.
Reservation. *n.* Reserve, retention. *Anto.*, donation.
Reside. *v.* Abide, inhabit. sojourn, dwell, live. *Anto.*, alienate.
Residence. *n.* Abode, domicile, dwelling.
Residue. *n.* Remainder, remnant.
Resign. *v.* Abdicate, forego, give up, relinquish, renounce. *Anto.*, retain.
Resignation. *n.* Acquiescence, endurance, patience, submission. *Anto.*, rebellion.
Resist. *v.* Confront, oppose, withstand. repel. *Anto.*, assist, submit.
Resolute. *adj.* Courageous, determined, fixed, steady. *Anto.*, irresolute.
Resolution. *n.* 1. Intention, resolve. 2. Firmness, constancy, decision. *Anto.*, 2. Irresolution, weakness, vacillation.
Resort. *v.* Frequent, haunt.
Resource. *n.* Expedient, means, resort.
Respect. *n.* 1. Esteem, regard, reverence, veneration. 2. Favor, good will. 3. Reference. *Anto.*, irreverence.
Respect. *v.* Honor, esteem, regard, venerate. *Anto.*, dishonor, disgrace.
Respectful. *adj.* Civil, dutiful, obedient. *Anto.*, uncivil.
Respite. *n.* 1. Interval. 2. Reprieve, suspension, delay. *Anto.*, continuation.
Response. *n.* Answer, reply, replication, rejoinder. *Anto.*, question.
Responsible. *adj.* Accountable, amenable, answerable. *Anto.*, irresponsible.
Rest. *n.* 1. Cessation, ease, intermission, quiet, repose, stop, pause. 2. Remainder, others. *Anto.*, 1. Motion, unrest.
Restless. *adj.* Unsettled, unquiet, roving. *Anto.*, quiet.
Restore. *v.* 1. Heal, cure. 2. Give up, repay, return, render, replace. *Anto.*, 2. Keep.
Restoration. *n.* Amends, reparation, restitution. *Anto.*, retention.
Restrain. *v.* Coerce, constrain, limit, repress, restrict, curb. *Anto.*, liberate.
Restrict. *v.* Bound, restrain, limit, confine. *Anto.*, free.
Result. *n.* Consequence, effect, event, issue.
Resurrection. *n.* Rising again.
Retain. *v.* Detain, hold, reserve, keep. *Anto.*, yield.
Retaliation. *n.* Reprisal, repayment. *Anto.*, pardon.
Retard. *v.* Hinder, obstruct, delay, check, impede. *Anto.*, hasten.
Retire. *v.* Recede, retreat, secede, withdraw. *Anto.*, come forward, approach.
Retract. *v.* Abjure, recall, recant, revoke. *Anto.*, reiterate.
Retrenchment. *n.* Diminution, reduction, curtailment. *Anto.*, increase.
Retrieve. *v.* Regain, recover. *Anto.*, lose.
Retrogression. *n.* Retrogradation, going backward. *Anto.*, progression.
Retrospect. *n.* Review, re-survey. *Anto.*, forecast.
Reveal. *v.* Discover, disclose, divulge, communicate, impart, publish. *Anto.*, conceal.
Revenge. *n.* Requital, retaliation. *Anto.*, forgiveness.
Revenue. *n.* Income, receipts. *Anto.*, expenditure.
Revere. *v.* Honor, venerate, adore, reverence. *Anto.*, execrate.
Reverse. *v.* Change, subvert, overturn, invert. *Anto.*, establish.
Review *v.* Notice, revise, survey, reconsider, inspect.
Revision. *n.* Review, reconsideration, revisal.
Revive. *v.* 1. Refresh, quicken, rouse, cheer, animate. 2. Revivify.
Revoke. *v.* Abolish, abrogate, annul, cancel, repeal, retract. *Anto.*, reiterate.

Reward. *n.* Compensation, recompense, remuneration, requital, satisfaction. *Anto.*, punishment.
Riches. *n.* Fortune, wealth, affluence, opulence. *Anto.*, poverty.
Ridicule. *n.* Mockery, derision, sneer, sarcasm, raillery, satire. *Anto.*, sympathy.
Ridiculous. *adj.* Absurd, preposterous, droll, ludicrous. *Anto.*, solemn, funereal.
Right. *adj.* True, straight, just, proper, *Anto.*, wrong.
Right. *n.* Privilege, claim, immunity. *Anto.*, disadvantage.
Righteous. *adj.* Good, honest, virtuous, upright, just, devout, religious, pious, holy, saintly. *Anto.*, bad.
Rigid. *adj.* 1. Strict, stern, severe, harsh, rigorous. 2. Stiff, unpliant, inflexible. *Anto.*, pliable.
Rigorous. *adj.* 1. Rigid, severe, harsh, austere. 2. Precise, accurate, exact. *Anto.*, lax.
Ripe. *adj.* 1. Mature. 2. Finished, consummate. 3. Ready, fit, prepared. *Anto.*, green, raw, immature.
Ripeness. *n.* Maturity, perfection, growth. *Anto.*, immaturity.
Rise. *n.* Increase, ascent, origin. *Anto.*, subsidence.
Rite. *n.* Ceremony, form, observance.
Rivalry. *n.* Contention, emulation, competition. *Anto.*, friendliness.
Road. *n.* Course, path, way, route.
Roam. *v.* Ramble, range, wander, rove, stroll.
Robust. *adj.* Athletic, stout, strong, brawny, stalwart, hale, mighty, powerful. *Anto.*, weak.
Romance. *n.* Tale, story, novel, fiction. *Anto.*, history.
Room. *n.* Apartment, chamber, space.
Room. *v.* Lodge.
Rough. *adj.* 1. Coarse, rude, blunt, ungentle, churlish. 2. Uneven. 3. Unpolished. *Anto.*, smooth.
Round. *adj.* Globular, circular. *Anto.*, cubical.
Round. *n.* 1. Circuit, tour, step. 2. Globe, orb, sphere. *Anto.*, 2. Cube.
Roundness. *n.* Rotundness, rotundity, circularity, sphericity.
Route. *n.* Road, way, course, path.
Rude. *adj.* *See Rough.*
Rudeness. *n.* 1. Roughness. 2. Gruffness, coarseness, incivility, churlishness. 3. Inelegance. *Anto.*, politeness, urbanity.
Rugged. *adj.* 1. Uneven, irregular, rough. 2. Harsh. 3. Robust, vigorous. *Anto.*, smooth.
Ruinous. *adj.* Baneful, noxious, destructive, calamitous. *Anto.*, helpful.
Rule. *n.* 1. Law, government, command. 2. Maxim, method, precept. 3. Guide, regulation. *Anto.*, lawlessness.
Rule. *v.* 1. Govern, control. 2. Mark. *Anto.*, rebel.
Rumor. *n.* Talk, gossip, report, news, bruit.
Rupture. *n.* 1. Altercation, quarrel, feud. 2. Hernia. 3. Fracture, breach.
Rural. *adj.* Country, pastoral, rustic. *Anto.*, urbane.
Ruse. *n.* Artifice, fraud, trick, wile.
Rustic. *n.* Clown, peasant, swain, boor, lout, bumpkin.
Rustic. *adj.* 1. Uncouth, unpolished, awkwark, rude. 2. Country, rural. *Anto.*, urban.
Ruthless. *adj.* Cruel, pitiless, merciless, relentless, savage, inhuman. *Anto.*, pitiful.

S

Sacred. *adj.* Divine, devoted, holy. *Anto.*, profane.
Sad. *adj.* 1. Depressed, sorrowful, cheerless, disconsolate. 2. Dismal, gloomy, mournful. *Anto.*, joyous.
Safe. *adj.* 1. Guarded, protected. 2. Sound, secure. 3. Reliable. *Anto.*, dangerous.
Sagacity. *n.* Acuteness, discernment, penetration. *Anto.*, dulness.
Sailor. *n.* Mariner, seaman. *Anto.*, landsman.
Salary. *n.* Hire, pay, stipend, wages.
Sanction. *n.* 1. Countenance, support. 2. Ratification, confirmation. *Anto.*, rejection, prohibition.
Sane. *adj.* Sober, lucid, sound. *Anto.*, crazy.
Sapient. *adj.* Sagacious, wise, discerning. *Anto.*, foolish.
Sarcasm. *n.* Irony, ridicule, satire.
Satiate. *v.* 1. Cloy, glut. 2. Satisfy, gratify. *Anto.*, hunger, starve.
Satisfaction. *n.* 1. Atonement. 2. Content. 3. Remuneration, reward. *Anto.*, dissatisfaction.
Satisfy. *v.* Gratify, please. 2. Glut, satiate, cloy. *Anto.*, displease.
Saving. *adj.* Thrifty, economical, frugal, sparing. *Anto.*, prodigal.
Saying. *n.* 1. Remark, observation, statement. 2. Maxim, proverb, aphorism, adage, saw.
Scandal. *n.* Discredit, disgrace, infamy, reproach, detraction. *Anto.*, praise.
Scarce. *adj.* Singular, rare, uncommon. *Anto.*, common.
Scarcity. *n.* Want, lack, deficiency, dearth. *Anto.*, abundance.
Search. *v.* Examine, investigate, enquire, pursue, scrutinize, seek.
Secede. *v.* Recede, retire, withdraw. *Anto.*, return.
Seclusion. *n.* Loneliness, retirement, privacy, solitude.
Secondary. *adj.* Inferior, subordinate, second. *Anto.*, primary.
Secret. *adj.* Clandestine, covered, hidden, concealed, latent, mysterious. *Anto.*, open.
Secular. *adj.* Temporal, worldly. *Anto.*, religious.
Secure. *v.* 1. Be certain, guard, make sure. 2. Guarantee. *Anto.*, lose.
Sedate. *adj.* Calm, composed, quiet, still, serene, unruffled. *Anto.*, lively.
Seduce. *v.* Allure, attract, decoy. *Anto.*, repel.
See. *v.* Behold, eye, look, observe, perceive, view.
Seek. *v.* 1. Search for, ask for. 2. Strive, try, endeavor. *Anto.*, lose.
Sell. *v.* Vend, barter, dispose of. *Anto.*, buy.
Senile. *adj.* Aged, old, infirm. *Anto.*, juvenile.
Sensation. *n.* Perception, sentiment, feeling.
Sense. *n.* Feeling, judgment, import, meaning, reason.
Sensibility. *n.* Delicacy, feeling, susceptibility.
Sensitive. *adj.* 1. Impressible, easily affected. 2. Perceptive. *Anto.*, callous.
Sentence. *n.* Decision, judgment, period, phrase, proposition.
Sentiment. *n.* Feeling, notion, opinion, sensation. *Anto.*, insensibility.
Sentimental. *adj.* Romantic. *Anto.*, prosaic.
Separate. *v.* 1. Disjoin, divide, detach, disunite, isolate. 2. Cleave, sever. *Anto.*, join.
Serious. *adj.* 1. Weighty, momentous. 2. Sober, grave, solemn, earnest. *Anto.*, jocose.
Servile. *adj.* Fawning, mean, slavish. *Anto.*, free.
Settle. *v.* Adjust, arrange, determine, establish, regulate, fix. *Anto.*, unsettle.
Settled. *adj.* Conclusive, confirmed, decisive, definitive, established. *Anto.*, unsettled.
Sever. *v.* Detach, disjoin, divide, separate. *Anto.*, join.
Several. *adj.* Different, distinct, diverse, sundry, various.
Severe. *adj.* Austere, cruel, harsh, rigid, rigorous, rough, sharp, strict, unyielding, stern. *Anto.*, mild.
Severity. *n.* 1. Austerity, rigor, sternness. 2. Keenness, causticity. 3. Violence. *Anto.*, mildness.
Shake. *v.* Agitate, quake, quiver, shiver, shudder, totter, tremble. *Anto.*, steady.
Shallow. *adj.* 1. Shoal. 2. Frivolous, flimsy, trivial. 3. Superficial, ignorant. *Anto.*, deep.
Shame. *n.* Disgrace, dishonor, ignominy, reproach. *Anto.*, honor.
Shameless. *adj.* Immodest, impudent, indecent, indelicate. *Anto.*, modest.
Shape. *v.* Fashion, form, mould.
Share. *v.* Apportion, distribute, divide, partake, participate.
Share. *n.* Dividend, part. *Anto.*, whole.
Sharpness. *n.* Acrimony, acuteness, penetration, shrewdness, sagacity. *Anto.*, dulness.
Shelter. *n.* Asylum, refuge, retreat.
Shelter. *v.* Cover, defend, harbor, lodge, protect, screen. *Anto.*, cast forth.
Shine. *v.* Gleam, glare, glisten, glitter. *Anto.*, darken.
Shining. *adj.* 1. Brilliant, glittering, radiant, sparkling. 2. Bright, splendid, resplendent. *Anto.*, dark, dim.
Shock. *v.* 1. Affright, terrify. 2. Appal, disturb, dismay. 3. Offend, disgust. *Anto.*, encourage, inspirit.
Shocking. *adj.* Dreadful, disgusting, terrible. *Anto.*, pleasant.
Short. *adj.* 1. Defective, scanty, wanting. 2. Brief, concise, compendious, laconic, succinct, summary. *Anto.*, long.
Shorten. *v.* 1. Abridge, abbreviate, retrench. 2. Diminish. *Anto.*, extend.
Show. *n.* 1. Display, parade, pomp. 2. Exhibition, representation, sight, spectacle.
Show. *v.* Display, exhibit, parade. *Anto.*, hide, cover.
Showy. *adj.* Gay, gorgeous, gaudy, flaunting, garish. 2. Pompous, ostentatious, magnificent. *Anto.*, simple, plain.
Shrewd. *adj.* Acute, keen, penetrating, artful, sly, sagacious. *Anto.*, dull.
Shudder. *v.* Shrink, shake, quake, quiver.
Shun. *v.* Avoid, elude, evade, eschew. *Anto.*, seek.
Sickly. *adj.* Diseased, ill, indisposed, morbid, sick, unwell. *Anto.*, healthy.
Sign. *n.* 1. Mark, note, symptom, prognostic, presage, signal. 2. Omen, token, symbol.
Signify. *v.* 1. Betoken, declare, express, intimate, testify, utter. 2. Denote, imply.
Significant. *adj.* 1. Indicative, expressive, betokening. 2. Momentous. *Anto.*, common, usual.
Silence. *n.* Stilness, taciturnity, muteness, oblivion. *Anto.*, sound, noise.
Silence. *v.* Still, stop, appease.
Silent. *adj.* 1. Dumb, mute, speechless. 2. Still, quiet. *Anto.*, noisy.
Silly. *adj.* Absurd, foolish, simple, stupid, weak, dull. *Anto.*, sedate.
Similarity. *n.* Likeness, resemblance, similitude. *Anto.*, unlikeness.
Simile. *n.* Comparison, similitude.
Simple. *adj.* 1. Elementary, single, not complex. 2. Open, artless, sincere. 3. Plain. 4. Silly. *Anto.*, complex, artful.
Simplicity. *n.* Artlessness, plainness, singleness. 2. Folly. *Anto.*, artfulness.
Simply. *adv.* 1. Merely, only, solely. 2. Artlessly.
Since. *conj.* As, because, for, insomuch as.
Sincere. *adj.* 1. Frank, honest, plain, genuine. 2. True, upright, incorrupt. *Anto.*, false.
Sinewy. *adj.* *See Robust.*
Single. *adj.* 1. Unmarried. 2. Alone, solitary. 3. Particular, individual. *Anto.*, married, double, several.
Singular. *adj.* 1. Odd, strange, uncommon, rare. 2. Peculiar, exceptional. *Anto.*, customary, usual.
Situation. *n.* 1. Case, plight, predicament, condition. 2. Locality, place, position, site.
Skilful. *adj.* Clever, skilled, knowing, intelligent, ready, adroit, quick. *Anto.*, unskilful.

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Slander. *v.* Asperse, blacken, defame, traduce, libel. *Anto.*, praise.
Slavery. *n.* Bondage, captivity, servitude, drudgery. *Anto.*, freedom.
Slender. *adj.* 1. Fragile, slight. 2. Slim, thin. 3. Limited. *Anto.*, thick.
Slight. *adj.* 1. Cursory, desultory, superficial. 2. Slim, weak. *Anto.*, 1. careful. 2. solid.
Slight. *v.* Neglect, scorn. *Anto.*, notice, commend.
Slow. *adj.* 1. Deliberate. 2. Heavy, dull, stupid. 3. Sluggish. *Anto.*, quick.
Small. *adj.* 1. Little, diminutive, stunted, tiny. 2. Minute, microscopic. 3. Narrow, illiberal. *Anto.*, large, great.
Smell. *n.* Fragrance, odor, perfume, scent, stench.
Smooth. *adj.* 1. Bland, mild, easy. 2. Even, level. *Anto.*, rough.
Smother. *v.* 1. Stifle, suffocate. 2. Suppress.
Snarling. *adj.* Cynical, snappish, waspish.
Sober. *adj.* 1. Abstemious, abstinent, temperate, moderate. 2. Grave. *Anto.*, intemperate, gay.
Sobriety. *n.* 1. Abstinence, temperance. 2. Coolness, soberness, gravity. *Anto.*, intemperance, intoxication.
Social. *v.* Companionable, conversable, familiar, sociable, convivial. *Anto.*, unsocial.
Society. *adj.* 1. Company, association, fellowship, corporation. 2. The public.
Soft. *adj.* 1. Compliant, ductile, flexible, tractable, pliant, yielding. 2. Mild, docile, gentle. *Anto.*, hard.
Soiled. *adj.* Stained, spotted, tarnished, defiled, polluted. *Anto.*, clean, pure.
Solicit. *v.* 1. Ask, request. 2. Beg, entreat, implore. 3. Beseech, supplicate. *Anto.*, give.
Solicitation. *n.* 1. Importunity, entreaty. 2. Invitation. *Anto.*, offering.
Solicitude. *n.* Anxiety, carefulness, trouble. *Anto.*, carelessness.
Solid. *adj.* Firm, hard, stable, substantial. *Anto.*, unstable.
Solitary. *adj.* 1. Alone, retired, sole. 2. Desolate, deserted, remote. 3. Lonely, only. *Anto.*, crowded.
Sombre. *adj.* 1. Dark, shady, dusky, sunless. 2. Sad, doleful, mournful. *Anto.*, gay, bright.
Soothe. *v.* 1. Allay, lessen, mitigate, ease. 2. Quiet, compose, pacify, appease. *Anto.*, irritate.
Sorrow. *n.* 1. Grief, affliction, trouble, sadness. 2. Regret. *Anto.*, joy.
Sort. *n.* 1. Kind, species. 2. Order, rank. 3. Manner.
Sound. *adj.* 1. Hearty, healthy, sane. 2. Entire, perfect, unhurt. *Anto.*, ill.
Sound. *n.* 1. Tone, noise, report. 2. Strait. *Anto.*, silence.
Sour. *adj.* Acid, acrimonious, acetose, acetous, sharp, tart. *Anto.*, sweet.
Source. *n.* Cause, fountain, origin, reason, spring.
Spacious. *adj.* Ample, capacious. *Anto.*, small.
Sparkle. *v.* 1. Twinkle, glitter, glisten, scintillate, corruscate. 2. Bubble, effervesce. *Anto.*, darken.
Speak. *v.* Articulate, converse, discourse, pronounce, say, talk, tell, utter. *Anto.*, silence.
Speaking. *n.* 1. Elocution, declamation, oratory. 2. Discourse, talk.
Species. *n.* Class, kind, sort, race.
Specific. *adj.* Particular, special, definite. *Anto.*, indefinite.
Specimen. *n.* Model, pattern, sample, example.
Specious. *adj.* Colorable, feasible, ostensible, plausible, showy. *Anto.*, real, genuine.
Spectator. *n.* Beholder, bystander, observer.
Speculation. *n.* Conjecture, scheme, theory.
Speech. *n.* 1. Talk. 2. Language, dialect. 3. Address, discourse, harangue, oration.
Speechless. *adj.* Dumb, mute, silent.
Spend. *v.* Dissipate, exhaust, lay out, expend, squander, waste, consume. *Anto.*, save.
Sphere. *n.* Circle, globe, orb. *Anto.*, cube.
Spill. *v.* Pour, shed, waste. *Anto.*, fill, gather.
Spirit. *n.* 1. Ardor, breath, courage, temper. 2. Ghost, soul. *Anto.*, mortal.
Spirited. *adj.* Active, animated, ardent, lively, vivacious. *Anto.*, stupid.
Spiritless. *adj.* 1. Dull, cold, apathetic, feeble, soulless. 2. Dejected, downcast. 3. Stupid, heavy, prosy, insipid. *Anto.*, spirited.
Spirits. *n.* Animation, courage, life, vivacity. *Anto.*, dullness.
Spiritual. *adj.* Ecclesiastical, immaterial, incorporeal, unearthly, heavenly. *Anto.*, worldly, terrestrial.
Spite. *n.* Grudge, malice, malignity, malevolence, pique, rancor. *Anto.*, forgiveness.
Spite. *v.* Anger, vex, thwart. *Anto.*, pardon, please.
Splendid. *adj.* 1. Showy, sumptuous, gorgeous, magnificent, superb. 2. Beaming, radiant, glowing, effulgent, brilliant. 3. Noble, heroic. 4. Glorious, eminent. *Anto.*, mean, dull, low.
Splendor. *n.* Brightness, brilliancy, lustre, magnificence, pomp, pageantry. *Anto.*, dullness, poverty.
Splenetic. *adj.* 1. Fretful, peevish. 2. Gloomy, morose, sullen. *Anto.*, amicable.
Sport. *n.* 1. Amusement, game, pastime, play. 2. Diversion, recreation. *Anto.*, work.
Spotless. *adj.* 1. Blameless, faultless, stainless. 2. Unblemished, unspotted. 3. Innocent. *Anto.*, stained.
Spread. *v.* 1. Circulate, disseminate, distribute, scatter. 2. Disperse, dispense. 3. Propagate, diffuse. *Anto.*, collect.
Spring. *v.* 1. Emanate, flow, proceed, issue. 2. Arise, start, leap.
Sprinkle. *v.* Bedew, scatter, besprinkle.
Sprout. *v.* Bud, germinate, shoot out.
Squander. *v.* Expend, spend, lose, lavish, dissipate, waste. *Anto.*, earn, husband.
Stability. *n.* Firmness, steadiness, fixedness. *Anto.*, instability, unstableness, inconstancy, fickleness.
Stain. *v.* 1. Foul, soil, sully, tarnish, blot, spot. 2. Color, tinge. *Anto.*, clean.
Stain. *n.* 1. Color, discolor. 2. Dye, tinge. 3. Flaw, speck, spot, blemish, blot.
Stale. *adj.* 1. Old, faded. 2. Common, trite. 3. Vapid, flat, musty, insipid. *Anto.*, new, fresh.
Stammer. *v.* Falter, hesitate, stutter.
Stamp. *n.* Print, mark, impression.
Standard. *n.* Criterion, rule, test.
Standard. *adj.* 1. Legal, usual, approved. 2. Banner. *Anto.*, unusual.
State. *n.* Condition, position, situation, predicament, plight.
Station. *n.* Post, place, position, situation.
Stay. *v.* 1. Prop, support. 2. Abide, continue, remain. 3. Delay, hinder, stop. 4. Support.
Steadfast. *adj.* Firm, constant, resolute. *Anto.*, shaky.
Steal. *v.* 1. Pilfer, purloin, poach, embezzle. 2. Win, gain, allure. *Anto.*, lose.
Stench. *n.* Bad smell, stink. *Anto.*, fragrance, perfume.
Sterling. *adj.* Real, genuine, true, pure. *Anto.*, false, counterfeit.
Sterility. *n.* Barrenness, unfruitfulness, aridity. *Anto.*, fruitfulness.
Stern. *adj.* Austere, rigid, rigorous, severe, strict. *Anto.*, mild.
Sticking. *adj.* Adherent, adhesive, tenacious.
Still. *n.* 1. Allay, appease, assuage. 2. Calm, lull, quiet, silence, pacify. *Anto.*, enrage, move, disturb.
Stimulate. *v.* Animate, excite, incite, arouse, kindle, fire. *Anto.*, depress.
Stingy. *adj.* Close, mean, miserly, niggardly, penurious, sordid. *Anto.*, generous.
Stock. *n.* 1. Accumulation, fund, hoard, provisions, store, supply. 2. Cattle.
Stoic. *n.* Follower of Zeno. *Anto.*, epicurean.
Stoop. *v.* Bend, condescend, submit. *Anto.*, straighten.
Stop. *n.* Cessation, intermission, rest. *Anto.*, continuance.
Stop. *v.* Check, hinder, impede. *Anto.*, aid.
Stormy. *adj.* 1. Gusty, squally, tempestuous, boisterous. 2. Rough, passionate. *Anto.*, calm.
Story. *n.* Anecdote, incident, memoir, tale.
Stout. *adj.* *See Strong, Robust.*
Strait. *adj.* 1. Close, narrow. 2. Strict. *Anto.*, wide, loose.
Strange. *Adj.* Curious, eccentric, odd, singular, surprising, wonderful, foreign, unusual. *Anto.*, usual.
Stratagem. *n.* Device, artifice, ruse, dodge, trick. *Anto.*, simplicity.
Strength. *n.* 1. Authority. 2. Force, might, power, potency. *Anto.*, weakness.
Strenuously. *adv.* Ardently, zealously, earnestly, vigorously. *Anto.*, weakly, feebly.
Strict. *adj.* Accurate, exact, nice, particular, precise, rigorous, severe, stern. *Anto.*, lenient.
Stricture. *n.* Animadversion, censure, contraction, criticism. *Anto.*, commendation,
Strife. *n.* Contention, contest, dissension, discord. *Anto.*, peace.
Strong. *adj.* 1. Efficient, powerful, potent, mighty. 2. Athletic, stalwart, robust, stout. 3. Forcible, cogent. 4. Tough, tenacious. *Anto.*, feeble, weak.
Structure. *n.* 1. Make, construction, texture. 2. Building, pile, edifice.
Stubborn. *adj.* Wilful, obstinate, mulish, perverse, obdurate, cantankerous. *Anto.*, docile.
Stupid. *adj.* 1. Sleepy, drowsy, torpid. 2. Flat, heavy, insipid, humdrum. 3. Dull, obtuse, foolish, witless, daft. *Anto.*, shrewd.
Style. *n.* Manner, mode, phraseology, diction.
Style. *v.* Characterize, designate, denominate, entitle, name.
Subdue. *v.* 1. Defeat, conquer, vanquish, overwhelm. 2. Subject, control. *Anto.*, submit.
Subject. *adj.* Exposed, liable, subservient. *Anto.*, shielded, secured.
Subject. *n.* Object, matter, material.
Subject. *v.* Subdue, subjugate.
Sublime. *adj.* Elevated, exalted, grand, great, lofty, majestic, high. *Anto.*, mean, low, base.
Submissive. *adj.* Compliant, obedient, humble, yielding. *Anto.*, rebellious.
Submission. *n.* 1. Compliance, obedience, meekness, humility. 2. Forbearance, endurance. *Anto.*, revolt.
Subordinate. *n.* Inferior, dependent. *Anto.*, superior;
Suborn. *v.* Forswear, perjure. *Anto.*, verify.
Subsequent. *adj.* 1. After, following. 2. Posterior, consequent. *Anto.*, preceding.
Subservient. *adj.* 1. Inferior, subordinate. 2. Subject. *Anto.*, superior.
Subside. *v.* 1. Abate, sink. 2. Intermit. *Anto.*, rise.
Subsistence. *n.* *See Sustenance.*
Substantial. *adj.* 1. Responsible. 2. Solid, stout, strong. *Anto.*, unstable.
Substantiate. *v.* Prove, establish, corroborate, verify. *Anto.*, disprove.
Substitute. *v.* Change, exchange. *Anto.*, retain.
Subterfuge. *n.* 1. Evasion, shift. 2. Quirk, trick.
Subtile. *adj.* 1. Fine, delicate, nice. 2. Thin, rare, ethereal. *Anto.*, coarse, rough.
Subtle. *adj.* 1 Keen, sagacious, profound. 2. Artful, sly, astute, crafty. *Anto.*, 1. Dull. 2. Open.
Subtract. *v.* Deduct, withdraw. *Anto.*, add.
Subvert. *v.* 1. Invert, reverse. 2. Overturn, overthrow. *Anto.*, maintain, build.
Successful. *adj.* Fortunate, lucky, prosperous. *Anto.*, unsuccessful.
Succession. *n.* Order, series. *Anto.*, disorder.

Succinct. *adj.* Brief, concise, terse, compact. *Anto.*, verbose.
Succor. *v.* Aid, help, assist, relieve. *Anto.*, injure, harry, mar.
Sudden. *adj.* Hasty, unanticipated, unexpected, unlooked-for. *Anto.*, slow.
Suffer. *v.* 1. Allow, permit, tolerate. 2. Endure, bear.
Suffocate. *v.* Choke, smother, stifle.
Sufficient. *adj.* 1. Adequate, enough. 2. Competent. *Anto.*, want.
Suffrage. *n.* 1. Aid, voice. 2. Vote.
Suggest. *v.* Allude, hint, insinuate, intimate.
Suggestion. *n.* Hint, allusion, intimation, insinuation.
Suitable. *adj.* 1. Agreeable, becoming. 2. Apt, fit, expedient. *Anto.*, unfit.
Suitor. *n.* 1. Lover, wooer. 2. Petitioner.
Summary. *n.* Abstract, compendium, digest, synopsis, epitome.
Summon. *v.* Bid, call, cite, invite. *Anto.*, send.
Sundry. *adj.* 1. Different, diverse. 2. Several, various. *Anto.*, single.
Superficial. *adj.* Flimsy, shallow, slight. *Anto.*, thorough.
Supersede. *v.* 1. Supplant, displace. 2. Annul, suspend.
Supplicate. *v.* Ask, beg, beseech, entreat, implore, solicit. *Anto.*, command.
Support. *v.* Assist, cherish, defend, endure, encourage, favor, forward, maintain, nurture, patronize, protect, prop, sustain, stay, second, uphold. *Anto.*, destroy, injure.
Suppose. *v.* Consider, imagine, apprehend, presume, think, believe.
Supreme. *adj.* Paramount, first, principal, chief, highest, greatest. *Anto.*, secondary.
Sure. *adj.* Certain, confident, infallible. *Anto.*, uncertain.
Surface. *n.* Outside, superficies. *Anto.*, interior.
Surly. *adj.* Morose, touchy, cross, fretful, peevish, cynical, rude. *Anto.*, amiable.
Surmise. *v.* Believe, conjecture, presume, suppose, suspect, think. *Anto.*, doubt.
Surmount. *v.* Conquer, overcome, rise above, subdue, vanquish. *Anto.*, yield.
Surpass. *v.* Excel, exceed, outdo, outstrip. *Anto.*, fall short.
Surprise. *n.* Admiration, amazement, astonishment, wonder. *Anto.*, habit, use.
Surrender. *v.* Cede, deliver, give up, resign, yield. *Anto.*, take.
Surround. *v.* Beset, encircle, encompass, environ, enclose, invest.
Survey. *n.* Prospect, retrospect, review.
Suspense. *n.* Doubt, indetermination, hesitation. *Anto.*, certainty.
Suspicion. *n.* Distrust, jealousy. *Anto.*, trust.
Sustain. *v.* *See Support.*
Sustenance. *n.* Living, maintenance, livelihood, subsistence, support.
Swarm. *n.* Crowd, throng, multitude, concourse. *Anto.*, few.
Sweetheart. *n.* Admirer, beau, lover, wooer. 2. Flame, lady-love.
Sweetness. *n.* 1. Beauty, loveliness. 2. Agreeableness. 3. Mildness, gentleness, amiability. *Anto.*, bitterness, sourness.
Swiftness. *n.* 1. Celerity, rapidity, fleetness, speed, velocity. *Anto.*, slowness.
Swiftly. *adv.* Speedily, post-haste, quickly, apace. *Anto.*, slowly.
Sycophant. *n.* Toady, fawner, parasite.
Symbol. *n.* Token, sign, figure, emblem.
Symmetry. *n.* Harmony, proportion. *Anto.*, inharmony.
Sympathy. *n.* 1. Pity, kindness, compassion, condolence, commiseration, fellow-feeling. 2. Harmony, affinity, correlation. 3. Agreement. *Anto.*, apathy, mercilessness, cruelty.
Symptom. *n.* Indication, mark, note, sign, token.
Synopsis. *n.* *See Summary.*
System. *n.* Method, order, scheme. *Anto.*, confusion.
Systematize. Arrange, order, regulate, methodize. *Anto.*, disarrange.

T

Table. *n.* 1. Board. 2. Repast, food, fare. 3. List, index, catalogue.
Tacit. *adj.* Implied, silent, inferred, understood. *Anto.*, spoken, expressed.
Taciturnity. *n.* Reserve, reticence, closeness. *Anto.*, loquacity.
Tact. *n.* Adroitness, skill, quickness, judgment. *Anto.*, awkwardness, gaucherie.
Talent. *n.* Ability, capability, faculty, endowment, gift.
Talk. *n.* Chat, communication, conference, colloquy, conversation, dialogue, discourse. *Anto.*, silence.
Talk. *v.* Chat, converse, discourse, speak, state, tell. *Anto.*, silence.
Talkativeness. *n.* Loquacity, garrulity. *Anto.*, taciturnity.
Tally. *v.* Accord, agree, match, comport, harmonize.
Tantalize. *v.* 1. Aggravate, irritate, provoke, tease, torment. 2. Taunt. *Anto.*, please, harmonize, gladden.
Taste. *n.* 1. Discernment, judgment, perception. 2. Flavor, relish, savor.
Tattler. *n.* Gossip, prattler, babbler, gadabout.
Taunt. *v.* Deride, mock, ridicule, jeer, flout. *Anto.*, praise, commend.
Tax. *n.* 1. Assessment, custom, duty, toll, rate. 2. Contribution, tribute.
Teacher. *n.* *See Schoolmaster.*
Tedious. *adj.* Dilatory, slow, tiresome, tardy, wearisome. *Anto.*, prompt.
Tell. *v.* Acquaint, communicate, disclose, impart, inform, mention, make known, report, reveal, talk. *Anto.*, listen.
Temerity. *n.* Heedlessness, rashness, precipitancy. *Anto.*, caution.
Temper. *n.* Disposition, temperament. 2. Humor, mood. 3. Frame.
Temperate. *adj.* Abstinent, abstemious, moderate, sober. *Anto.*, immoderate.
Tempest. *n.* 1. Storm, gale, squall, hurricane, tornado. 2. Tumult, disturbance. *Anto.*, calm.
Tempt. *v.* 1. Allure, entice, induce, decoy, seduce, inveigle. 2. Incline, provoke. 3. Test, try, prove.
Temporal. *adj.* 1. Secular, worldly. 2. Sublunary. *Anto.*, spiritual, eternal.
Temporary. *adj.* 1. Transient, transitory. 2. Fleeting. *Anto.*, permanent.
Tendency. *n.* 1. Inclination, propensity, proneness. 2. Drift, scope. 3. Aim. *Anto.*, disinclination.
Tender. *adj.* 1. Kind, compassionate, mild, lenient, sympathetic. 2. Delicate, soft. 3. Womanly, effeminate. 4. Feeble, infantile. 5. Pathetic. 6. Sensitive. *Anto.*, tough, callous, brutal.
Tenderness. *n.* Affection, benignity, fondness, humanity. *Anto.*, roughness.
Tenet. *n.* Doctrine, dogma, opinion, position, principle.
Term. *n.* 1. Boundary, limit. 2. Condition, stipulation. 3. Expression, word.
Terminate. *v.* Complete, finish, end, close. *Anto.*, commence, begin.
Terrible. *adj.* Dreadful, fearful, frightful, terrific, horrible, shocking. *Anto.*, delightful.
Territory. *n.* Country, domain, land.
Terror. *n.* Alarm apprehension, consternation, dread, fear, fright. *Anto.*, confidence.
Terse. *adj.* Compact, concise, pithy, sententious. *Anto.*, verbose.
Test. *n.* Criterion, experiment, trial, experience, proof, standard.
Testify. *v.* Declare, prove, signify, witness, affirm.
Testimony. *n.* Evidence, proof.
Text. *n.* Verse, passage, sentence, paragraph. 2. Topic, subject, theme. 3. Body.
Thankful. *adj.* Grateful. *Anto.*, ungrateful.
Theory. *n.* Speculation. *Anto.*, practice.
Therefore. *adv.* Accordingly, hence, so, then, consequently, thence, wherefore.
Thick. *adj.* Dense, close. *Anto.*, thin.
Think. *v.* Cogitate, conceive, consider, contemplate, deliberate, imagine, opine, meditate, ponder, surmise.
Thirsty. *adj.* 1. Dry, parched. 2. Eager, longing, craving, greedy.
Though. *conj.* Although, while.
Thought. *n.* Cogitation, conception, conceit, contemplation, deliberation, fancy, idea, imagination, meditation, notion, reflection, supposition.
Thoughtful. *adj.* Anxious, attentive, careful, circumspect, considerate, contemplative, deliberate, discreet, reflective, solicitous, wary. *Anto.*, thoughtless.
Thoughtless. *adj.* Careless, gay, inconsiderate, foolish, hasty, indiscreet, unreflective. *Anto.*, thoughtful.
Thrive. *v.* 1. Succeed, prosper. 2. Improve, flourish, grow, advance. *Anto.*, decay.
Throng. *n.* Multitude, crowd, horde, host.
Through. *prep.* By, with.
Throw. *v.* Cast, fling, hurl, toss. *Anto.*, catch.
Thwart. *v.* 1. Balk, defeat, oppose, obstruct, frustrate. 2. Cross, traverse. *Anto.*, aid.
Time. *n.* Age, date, duration, epoch, era, period, season.
Timely. *adj.* Prompt, punctual, opportune, seasonable. *Anto.*, untimely.
Timidity. *n.* 1. Bashfulness, coyness, diffidence, sheepishness. 2. Timorousness, cowardice, pusillanimity. *Anto.*, audacity.
Tiny. *adj.* Small, little, puny, diminutive. *Anto.*, great, large.
Tired. *adj.* Fatigued, harassed, jaded, wearied. *Anto.*, buoyant, eager.
Tiresome. *adj.* Tedious, wearisome. *Anto.*, interesting.
Title. *n.* 1. Name, appellation, designation, cognomen. 2. Right. 3. Inscription.
Toast. *n.* 1. Toasted bread. 2. Pledge, health. 3. Sentiment.
Token. *n.* Indication, mark, note, sign, symptom.
Tolerate. *v.* Admit, allow, suffer, permit. *Anto.*, prohibit, decline.
Tolerance. *n.* Toleration, sufferance, endurance. *Anto.*, intolerance.
Too. *adv.* 1. Over, more than enough. 2. Also, besides.
Torment. *v.* 1. Tease, plague, provoke, worry, harass, tantalize. 2. Distress, agonize, torture, rack. *Anto.*, appease.
Torture. *See Torment.*
Tortuous. *adj.* Tormenting, twisting, winding. *Anto.*, easy, straight.
Total. *adj.* Complete, entire, whole, gross. *Anto.*, part.
Touch. *n.* Contact, proof, test, feeling.
Touching. *adj.* Tender, moving, pathetic, melting, affecting. *Anto.*, ridiculous, prosy.
Tough. *adj.* 1. Cohesive, tenacious. 2. Hardy, strong, firm. 3. Stubborn, obdurate, refractory. *Anto.*, tender, brittle.
Tour. *n.* Circuit, excursion, ramble, jaunt, round, trip.
Toy. *n.* Bubble, trifle, bagatelle. 2. Plaything, trinket, gimcrack.
Trace. *v.* 1. Deduce, derive. 2. Sketch, follow.
Trace. *n.* Mark, track, vestige, footstep.
Trade. *n.* Avocation, business, calling, dealing, employment, occupation, traffic.
Traduce. *v.* 1. Calumniate, vilify, defame, decry, degrade, depreciate, detract, disparage. 2. Censure, condemn. *Anto.*, eulogize.
Tranquillity. *n.* Calmness, quiet, repose, peace, placidity, sereneity. *Anto.*, turmoil, tumult.
Transact. *v.* Conduct, negotiate, manage.
Transcend. *v.* Pass, excel, exceed, surpass, out-do.
Transient. *v.* Fleeting, short, momentary. *Anto.*, permanent.
Transparent. *adj.* Clear, pellucid, pervious, translucent, transpicuous. *Anto.*, opaque.
Transpire. *v.* 1. Occur, happen. 2. come out, be disclosed. 3. Exhale, evaporate.
Transport. *n.* 1. Carriage, conveyance, transportation. 2. Ecstacy, rapture. 3. Rage. *Anto.*, depression, melancholy.

Traveller. *n.* Tourist, passenger, itinerant, voyager, pilgrim.
Treacherous. *adj.* Faithless, perfidious, insidious, false. *Anto.*, faithful.
Treachery. *n.* Treason, perfidy, disloyalty, perfidiousness. *Anto.*, loyalty.
Treasonable. *adj.* Traitorous, treacherous. *Anto.*, loyal.
Treat. *v.* Entertain, negotiate, feast.
Tremendous. *adj.* Dreadful, terrible, horrible, frightful, alarming, awful, appalling. *Anto.*, small, mean.
Trepidation. *n.* Agitation, emotion, tremor, trembling. *Anto.*, calm.
Trespass. *v.* 1. Offend, transgress, sin. 2. Intrude, infringe, encroach.
Trial. *n.* 1. Attempt, effort, endeavor, experiment, examination, proof, test. 2. Temptation.
Tribunal. *n.* 1. Court, bar, judicatory. 2. Bench.
Trick. *n.* Artifice, cheat, deception, fraud, finesse, imposture, sleight, stratagem.
Trifling. *adj.* Futile, frivolous, inconsiderable, light, petty, unimportant. *Anto.*, important.
Trim. *v.* 1. Lop, clip, shear. 2. Arrange, adjust. 3. Deck, decorate, adorn, garnish, ornament, embellish. *Anto.*, 1. Increase, add. 2. Disarrange.
Trip. *n.* Excursion, jaunt, tour, ramble.
Triumphant. *adj.* Victorious, successful, conquering. *Anto.*, subdued.
Troth. *n.* 1. Faith, fidelity, belief. 2. Truth. *Anto.*, falsehood, lie.
Trouble. *n.* Adversity, affliction, anxiety, distress, sorrow, vexation. *Anto.*, happiness.
Trouble. *v.* Disturb, grieve.
Troublesome. *adj.* Annoying, disturbing, harassing, importunate, irksome, perplexing, teasing. *Anto.*, pleasant.
True. *adj.* Honest, plain, upright, sincere. *Anto.*, treacherous.
Truce. *n.* 1. Cessation, intermission. 2. Armistice. *Anto.*, continuance.
Trust. *n.* Belief, credit, confidence, faith, hope. *Anto.*, suspicion.
Trustee. *n.* Agent, depositary, fiduciary.
Truth. *n.* Faithfulness, fidelity, honesty, veracity. *Anto.*, falsehood.
Try. *v.* Attempt, endeavor, essay, test, examine.
Tug. *v.* Hale, haul, pluck, pull.
Tuition. *n.* Schooling, instruction, teaching, education. *Anto.*, ignorance.
Tumble. *v.* Drop, fall, rumple, sink, turn over. *Anto.*, rise.
Tune. *n.* 1. Air, strain, melody. 2. Concord, harmony.
Turbid. *adj.* Roily, unsettled, thick, muddy, foul. *Anto.*, clear.
Turbulent. *adj.* Mutinous, riotous, seditious, tumultuous, violent. *Anto.*, quiet.
Turmoil. *n.* Disturbance, uproar, commotion, tumult. *Anto.*, peace.
Turn. *n.* Bent, cast, gyration, meander. *Anto.*, disinclination.
Turn. *v.* Bend, circulate, contort, distort, gyrate, revolve, twist, wind, wheel, whirl. *Anto.*, straighten, still, quiet.
Turncoat. *n.* *See Renegade.*
Turpitude. *n.* Wickedness, baseness, depravity, vileness. *Anto.*, goodness.
Tutor. *n.* Instructor, governess, governante.
Twaddle. *n.* Stuff, nonsense, tattle, gossip, balderdash, moonshine. *Anto.*, sense.
Twilight. *n.* Dusk. *Anto.*, daylight.
Twine. *n.* Encircle, embrace, entwine, *Anto.*, untwine.
Twinge. *v.* Pinch, pull, twitch, tweak.
Twinge. *n.* Pang, grip, twitch, spasm.
Twit. *v.* Taunt, blame, reproach. *Anto.*, commend.
Type. *n.* 1. Printing character. 2. Kind, form, sort. 3. Exemplar, original, model. 4. Mark, symbol, sign, token, emblem.
Tyro. *n.* Beginner, learner, novice. *Anto.*, licentiate.

U

Ugliness. *n.* Homeliness, plainness. 2. Hideousness, frightfulness. *Anto.*, beauty.
Ugly. *adj.* 1. Plain, homely, ordinary, unsightly. 2. Horrid, hideous, shocking. *Anto.*, pretty.
Ultimate. *adj.* Final, last, eventual, extreme. *Anto.*, first.
Umpire. *n.* Judge, referee, arbitrator, arbiter.
Unacceptable. *adj.* Unwelcome, displeasing, unpalatable. *Anto.*, acceptable.
Unadorned. *adj.* Undecorated, ungarnished, not embellished, not bedecked. *Anto.*, ornate.
Unbecoming. *adj.* Improper, unsuitable, indecorous, unseemly. *Anto.*, becoming.
Unbelief. *n.* Disbelief, infidelity, skepticism, incredulity, distrust. *Anto.*, belief.
Unblemished. *adj.* Pure, clean, spotless, sinless, guileless, immaculate. *Anto.*, blemished.
Unbounded. *adj.* Boundless, illimitable, infinite, interminable, unlimited. *Anto.*, limited.
Unceasingly. *adv.* Always, constantly, continually, ever, perpetually. *Anto.*, intermittently.
Uncertain. *adj.* Doubtful, precarious, dubious, equivocal. *Anto.*, certain.
Unchangeable. *adj.* Immutable, unalterable. *Anto.*, fickle.
Uncivil. *n.* Impolite, ungracious, uncourteous, rude. *Anto.*, polite.
Uncommon. *adj.* Choice, unfrequent, rare, scarce, singular, unique. *Anto.*, usual.
Uncongenial. *adj.* 1. Unsuited, disagreeable. 2. Dissimilar. *Anto.*, congenial.
Unconcerned. *adj.* Cool, unaffected, indifferent, careless, apathetic, nonchalant. *Anto.*, concerned, excited, vexed.
Uncover. *v.* 1. Discover, reveal, disclose. 2. Strip, lay bare. *Anto.*, conceal.
Undaunted. *adj.* Fearless, brave, bold, manful, resolute, intrepid. *Anto.*, weak.
Undeniable. *adj.* Evident, obvious, indisputable, incontrovertible, irrefragible. *Anto.*, disputable.
Under. *prep.* Below, beneath, inferior, lower, subjacent, subject.
Understanding. *n.* 1. Mind, intellect, reason, sense. 2. Notion, idea, judgment, knowledge. 3. Agreement.
Undetermined. *adj.* Doubtful, fluctuating, hesitating, irresolute, unsteady, vacillating, wavering. *Anto.*, resolute.
Unfaithful. *adj.* False, treacherous, faithless, recreant, perfidious, dishonest, disloyal. *Anto.*, faithful.
Unfit. *adj.* 1. Inapt, inappropriate, unsuitable. 2. Incapable, unqualified. *Anto.*, competent, convenient.
Unfold. *v.* Develop, display, open, divulge, expand, reveal, unravel. *Anto.*, hide.
Unguarded. *adj.* 1. Thoughtless, careless. 2. Undefended, naked, unprotected. *Anto.*, guarded.
Ungrateful. *adj.* Unpleasing, thankless. *Anto.*, thankful.
Unhandy. *adj.* 1. Inconvenient. 2. Clumsy, bungling, awkward, maladroit. *Anto.*, skilful.
Unhappy. *adj.* 1. Afflicted, distressed, wretched, miserable. 2. Disastrous, hard, severe. *Anto.*, happy.
Unhealthy. *adj.* Diseased, sickly, infirm, invalid. *Anto.*, healthy.
Uniform. *adj.* 1. Regular, unvarying, alike, undeviating. 2. Consonant. *Anto.*, irregular.
Unkind. *adj.* Harsh, unamiable, unfriendly, cruel. *Anto.*, kind.
Unimportant. *adj.* Inconsiderable, immaterial, insignificant, trifling, petty, trivial. *Anto.*, weighty.
Unison. *n.* Accordance, agreement, concord, harmony, melody. *Anto.*, discord.
Unlawful. *adj.* Illegal, unlicensed, illicit. *Anto.*, legal, lawful.
Unlearned. *adj.* Ignorant, illiterate, uneducated, unlettered. *Anto.*, learned.
Unlike. *adj.* Different, dissimilar, distinct. *Anto.*, similar.
Unlimited. *adj.* Boundless, illimitable, infinite, unbounded. *Anto.*, limited.
Unmerciful. *adj.* Callous, cruel, hard-hearted, merciless, severe. *Anto.*, merciful.
Unquestionable. *adj.* Indisputable, undeniable, certain, obvious, incontestable, indubitable, irrefragible. *Anto.*, questionable.
Unravel. *v.* Develop, disentangle, extricate, unfold. *Anto.*, tangle.
Unreal. *adj.* Shadowy, imaginary, insubstantial, visionary, ghostly, spectral.
Unrelenting. *adj.* Unpitying, relentless, rigorous, inexorable, harsh, cruel, merciless. *Anto.*, tender.
Unruly. *adj.* Ungovernable, mutinous, seditious, insubordinate, turbulent. *Anto.*, obedient.
Unseen. *adj.* Invisible, undiscovered, hidden. *Anto.*, visible.
Unsettled. *adj.* 1. Vacillating, uncertain, unsteady, wavering, restless. 2. Turbid. 3. Undetermined. *Anto.*, resolute.
Unspeakable. *adj.* Unutterable, inexpressible, ineffable.
Unskilful. *adj.* Ignorant, wanting art or knowledge. *Anto.*, skilful.
Unsocial. *adj.* Unsociable, unkind. *Anto.*, sociable.
Unstable. *adj.* 1. Fickle, inconstant, mutable, vacillating. 2. Fluctuating.
Untimely. *adj.* Premature, inopportune, unseasonable. *Anto.*, timely.
Unsuccessful. *adj.* Unfortunate, unlucky. *Anto.*, successful.
Untwine. *v.* Untwist, unwind.
Unwearied. *adj.* Indefatigable, restless, fresh. *Anto.*, tired.
Unwilling. *adj.* Reluctant, loath, indisposed, disinclined. *Anto.*, willing.
Upbraid. *v.* Blame, censure, reprove, condemn, stigmatize, taunt.
Upright. *adj.* 1. Erect. 2. Honest, bold. *Anto.*, prone.
Uproar. *n.* Commotion, hubbub, disturbance, clamor, tumult. *Anto.*, calm.
Urbanity. *n.* Civility, courtesy, politeness, suavity. *Anto.*, incivility.
Urge. *v.* 1. Instigate, incite, stimulate, spur. 2. Solicit, entreat. 3. Impel, push, drive. *Anto.*, hinder.
Urgent. *adj.* Importunate, pressing, cogent. *Anto.*, unimportant.
Usage. *n.* 1. Habit, practice, custom. 2. Treatment.
Use. *v.* 1. Employ. 2. Consume, exhaust, expend. 3. Exercise, practice. 4. Accustom, inure. *Anto.*, abuse.
Useful. *adj.* Helpful, serviceable, good, convenient, profitable. *Anto.*, futile.
Usually. *adv.* Regularly, ordinarily, generally, habitually. *Anto.*, seldom.
Useless. *adj.* Fruitless, ineffectual, vain.
Utility. *n.* Use, service, usefulness, avail, benefit, profit. *Anto.*, worthlessness.
Utterly. *adv.* Wholly, completely, fully, totally. *Anto.*, partly.
Uttermost. *adj.* 1. Utmost, greatest. 2. Extreme, farthest. *Anto.*, nearest, next.
Unusual. *adj.* Rare, uncommon.
Unwelcome. *adj.* 1. Unacceptable. 2. Displeasing. *Anto.*, welcome.

V

Vacant. *adj.* 1. Empty, unfilled, void. 2. Thoughtless. *Anto.*, filled.
Vacancy. *n.* 1. Chasm. 2. Emptiness, vacuity. *Anto.*, fulness, plethora.
Vacate. *v.* 1. Make empty, void, annul. 2. Leave. *Anto.*, occupy.
Vague. *adj.* Indefinite, uncertain, dim, doubtful, obscure. *Anto.*, definite.
Vain. *adj.* 1. Inflated, conceited, overweening, ostentatious. 2. Useless, fruitless. *Anto.*, modest.
Valediction. *n.* Taking leave, farewell. *Anto.*, welcome.
Valid. *adj.* Sound, just, logical, sufficient, grave. *Anto.*, invalid.
Valuable. *adj.* Costly, precious, worthy, estimable. *Anto.*, worthless.
Value. *n.* Account, appreciation, estimation, price, rate, worth.
Value. *v.* Appraise, assess, calculate, appreciate, compute, esteem, estimate, regard, respect.
Vanity. *n.* Arrogance, conceit, pride, haughtiness. *Anto.*, modesty, humility.

Vanquish. *v.* Beat, overcome, quell, conquer, subdue, confuse, defeat, subjugate. *Anto.*, yield.
Vapid. *adj.* 1. Insipid, flat, spiritless. 2. Dull, tame, prosy. *Anto.*, spirited.
Variable. *adj.* Changeable, capricious, fickle, unsteady, versatile, wavering. *Anto.*, unchangeable.
Variance. *n.* Discord, strife, discussion. *Anto.*, unison.
Variation. *n.* 1. Difference, deviation, diversity. 2. Change, mutation. *Anto.*, permanence.
Variety. *n.* 1. Difference, diversity. 2. Multiplicity. *Anto.*, simplicity.
Various. *adj.* 1. Different, several, sundry, many. 2. Diversified. *Anto.*, simple.
Veer. *v.* Turn, shift, change course.
Vegetate. *v.* Spring, grow, shoot, germinate.
Vehement. *adj.* 1. Passionate, violent, furious. 2. Earnest, fervid. 3. Forcible, strong. *Anto.*, gentle.
Velocity. *n.* Speed, rapidity, swiftness, fleetness. *Anto.*, sloth.
Venerate. *v.* Honor, respect, revere, adore. *Anto.*, despise.
Veracity. *n.* Candor, truthfulness, honesty, ingenuousness. *Anto.*, mendacity.
Verbal. *adj.* 1. Literal. 2. Unwritten, oral, spoken, parole. *Anto.*, written.
Verbose. *adj.* Diffuse, wordy, windy, prolix. *Anto.*, succinct, terse, concise.
Vestige. *n.* Mark, trace, track, footstep.
Vexation. *n.* 1. Annoyance, trouble, torment. 2. Displeasure. *Anto.*, pleasure.
Vice. *n.* Wickedness, crime, sin, moral ill. *Anto.*, virtue.
Vicinity. *n.* 1. Neighborhood. 2. Proximity, nearness.
View. *n.* 1. Scene, vista, prospect. 2. Picture, sketch. 3. Sight, inspection. 4. Opinion.
Vigilant. *adj.* Watchful, circumspect. *Anto.*, heedless.
Vigorous. *adj.* 1. Strong, energetic. 2. Healthy, sound. 3. Racy, pointed. *Anto.*, weak.
Violent. *adj.* 1. Fierce, hot. 2. Vehement, boisterous, furious, impetuous, turbulent 3. Sharp, intense. *Anto.*, gentle.
Vile. *adj.* 1. Wicked, knavish. 2. Low, base, mean, foul. *Anto.*, noble, lofty.
Vindicate. *v.* Clear, defend, protect, justify. *Anto.*, implicate, criminate.
Virtue. *n.* 1. Goodness, integrity, worth. 2. Power, efficacy. *Anto.*, vice.
Virtuous. *adj.* 1. Pure, chaste. 2. Good, righteous, exemplary. *Anto.*, bad.
Visible. *adj.* 1. Patent, apparent, evident, obvious. 2. Perceptible. *Anto.*, unseen.
Visionary. *adj.* Enthusiastic, fantastic, fanatical, imaginary. *Anto.*, cautious, sensible.
Visitation. *n.* 1. Affliction, trouble, dispensation. 2. Inspection.
Vital. *adj.* Necessary, essential, indispensable. *Anto.*, unnecessary.
Vitiate. *v.* Contaminate, pollute, defile, infect, sophisticate, taint. *Anto.*, cleanse.
Vivid. *adj.* Active, bright, clear, lively, lucid, quick, sprightly, striking. *Anto.*, dull.
Volatility. *n.* Flightiness, giddiness, levity, lightness, liveliness. *Anto.*, steadiness.
Voluptuous. *adj.* Sensual, epicurean, luxurious. *Anto.*, stoical, harsh.
Voluptuary. *n.* Epicure, sensualist. *Anto.*, ascetic.
Vouch. *v.* 1. Attest, warrant, avouch. 2. Back, support. *Anto.*, deny.
Vulgarity. *n.* Coarseness, grossness, meanness, rudeness, vileness. *Anto.*, refinement.

W

Wag. *n.* Humorist, joker, jester, wit. *Anto.*, dullard, butt.
Wages. *n., pl.* Pay, salary, hire, compensation, stipend, earnings.
Wakeful. *adj.* Sleepless, vigilant, watchful, wary. *Anto.*, drowsy.
Walk. *n.* Carriage, gait, path.
Walk. *v.* Perambulate.
Wander. *v.* 1. Stray, swerve, digress, deviate. 2. Stroll, ramble, roam. *Anto.*, run.
Want. *n.* 1. Need. 2. Poverty, indigence. 3. Lack, dearth, scarcity. *Anto.*, plenty.
Wares. *n.* Commodities, goods, merchandise.
Wariness. *n.* Care, caution, circumspection, forethought, prudence. *Anto.*, heedlessness.
Warlike. *adj.* 1. Hostile, inimical. 2. Military, bellicose. *Anto.*, peaceful.
Warm. *adj.* 1. Genial, pleasant, sunny. 2. Not cold. 3. Fervent. 4. Excited. *Anto.*, cool.
Warmth. *n.* 1. Glow. 2. Zeal, vehemence, ardor, fervor. *Anto.*, coolness.
Warning. *n.* 1. Monition, admonition. 2. Notice. 3. Caution.
Wary. *adj.* Vigilant, cautious, discreet, guarded. *Anto.*, heedless.
Waste. *n.* 1. Loss, consumption. 2. Refuse. 3. Pillage, ruin, destruction, devastation. *Anto.*, replenishment, frugality.
Wasteful. *adj.* 1. Destructive. 2. Profuse, lavish, extravagant. *Anto.*, frugal.
Watchful. *adj.* Vigilant, careful, wary, circumspect, alert. *Anto.*, careless.
Wave. *n.* Ripple, undulation, swell, surge, billow, breaker.
Waver. *v.* 1. Fluctuate, vacillate. 2. Flicker, wave. *Anto.*, steadfast.
Way. *n.* 1. Path, route, course, road. 2. Mode, method.
Wayward. *adj.* Forward, perverse, obstinate, willful, headstrong, stubborn. *Anto.*, docile.
Weak. *adj.* 1. Feeble, languid, weakly. 2. Frail, sickly. *Anto.*, strong.
Weaken. *v.* Debilitate, unnerve, enfeeble. 2. Lower, reduce. *Anto.*, invigorate.
Weakness. *n.* Debility, effeminacy. *Anto.*, strength.
Wealth. *n.* Abundance, fortune, affluence, riches, opulence. *Anto.*, poverty.
Weariness. *n.* Exhaustion, languor, lassitude, fatigue. *Anto.*, buoyancy, vigor.
Weary. *adj.* Annoy, fatigue, harass, jade, subdue, tire, vex. *Anto.*, fresh, unwearied.
Wedding. *n.* Bridal, espousal, marriage, nuptials. *Anto.*, divorce.
Wedlock. *n.* Marriage, matrimony.
Wee. *adj.* Small, little, diminutive, pigmy, tiny. *Anto.*, large.
Weight. *n.* 1. Gravity, ponderosity. 2. Burden, load. 3. Influence, importance. *Anto.*, lightness.
Weighty. *adj.* Momentous, important. *Anto.*, unimportant, light, trifling.
Welcome. *adj.* 1. Pleasing, acceptable, agreeable, gratifying. 2. Admitted with pleasure. *Anto.*, unwelcome.
Welfare. *n.* Weal, well-being, success, prosperity. *Anto.*, failure, poverty.
Whet. *v.* 1. Stimulate, quicken, excite, arouse, kindle. 2. Sharpen. *Anto.*, dull.
Whimsical. *adj.* Capricious, fantastic, fanciful. *Anto.*, commonplace.
Whiten. *v.* Bleach, fade, blanch. *Anto.*, blacken.
Whole. *adj.* All, sum, total. *Anto.*, part.
Wicked. *adj.* 1. Bad, ill, evil, iniquitous. 2. Sinful, vicious, impious. *Anto.*, virtuous.
Willingly. *adj.* Spontaneously, voluntarily, readily. *Anto.*, unwillingly.
Wily. *adj.* Crafty, artful, sly, cunning, insidious, subtle, snaky. *Anto.*, ingenuous.
Win. *v.* 1. Gain, get, obtain, acquire, earn, achieve. 2. Gain over. *Anto.*, lose.
Wince. *v.* Shrink, flinch, startle.
Winding. *adj.* Meandering, serpentine, flexuous, sinuous. *Anto.*, straight.
Windy. *adj.* Breezy, stormy, gusty, tempestuous, blustering. *Anto.*, calm.
Wisdom. *n.* 1. Sagacity, sense, judgment. 2. Learning, knowledge. 3. Reasonableness. *Anto.*, ignorance.
Wise. *adj.* 1. Sage, sensible, judicious. 2. Erudite. 3. Sly, subtle, knowing. *Anto.*, ignorant.
Wit. *n.* Burlesque, contrivance, humor, irony, ingenuity, stratagem. *Anto.*, dulness.
With. *prep.* By, through.
Withdraw. *v.* 1. Recant, disavow. 2. Remove. 3. Disengage, wean, go back, recede, retire, retreat, retrograde, take back. *Anto.*, 1. Endorse, come forward.
Withhold. *v.* 1. Retain. 2. Restrain. *Anto.*, release.
Withstand. *v.* Oppose, thwart, resist.
Witness. *n.* Deponent, evidence, testimony.
Wonder. *n.* 1. Marvel, prodigy, miracle. 2. Surprise, amazement. 3. Curiosity. *Anto.*, commonplace.
Wonderful. *adj.* Admirable, astonishing, curious, marvellous, strange, surprising. *Anto.*, usual, customary.
Wood. *n.* 1. Copse, grove, forest. 2. Timber.
Word. *n.* Expression, promise, term.
Worker. *n.* 1. Performer. 2. Operative, laborer, workman, artificer. *Anto.*, idler.
Worship. *n.* Adore, honor, revere. *Anto.*, execrate.
Worth. *n.* Desert, excellence, merit, price, rate, value. *Anto.*, worthlessness.
Worthless. *adj.* Valueless, degraded. *Anto.*, valuable.
Worthy. *adj.* 1. Good, excellent, estimable, virtuous. 2. Deserving. *Anto.*, unworthy.
Wretched. *adj.* 1. Poor, bad, vile, pitiful. 2. Calamitous. 3. Forlorn, unhappy, miserable. *Anto.*, happy.
Written. *adj.* Penned, inscribed, transcribed. *Anto.*, verbal.
Writer. *n.* 1. Author. 2. Scribe, clerk, secretary, amanuensis. 3. Penman.
Wrong. *v.* Maltreat, injure, abuse, oppress. *Anto.*, right.
Wrong. *adj.* Untrue, faulty, not fit, unsuitable, unjust. *Anto.*, right.
Wrong. *n.* Injustice, error, injury. *Anto.*, right, justice.
Wrongly. *adv.* Erroneously.
Wrought. *v.* Done, performed, effected.
Wry. *adj.* Crooked, askew, distorted, twisted. *Anto.*, straight.

X

Xeres. *n.* Sherry.
Xiphoid. *adj.* Swordlike, ensiform.
Xylography. *n.* Wood-engraving.

Y

Yearly. *adj.* Annually, per annum.
Yeoman. *n.* Farmer, freeholder, commoner. *Anto.*, gentleman.
Yet. *conj.* or *adv.* But, however, nevertheless, notwithstanding, still, hitherto, further, besides.
Yield. *v.* Allow, cede, communicate, comply, conform, concede, give, produce, permit, resign, surrender. *Anto.*, take.
Yield. *n.* Crop, product.
Yielding. *adj.* Compliant, submissive, facile, unresisting, accommodating. *Anto.*, stubborn.
Yoke. *n.* 1. Link, chain, tie, bond. 2. Servitude, dependence, bondage, subjection, thraldom.
Yoke. *v.* Associate, join, link, couple, conjoin. *Anto.*, sever.
Youth. *n.* 1. Lad, boy, stripling. 2. Young men, young women. 3. Juniority, minority, juvenility, adolescence. *Anto.*, age.

Z

Zany. *adj.* Clown, buffoon, harlequin, Punch, fool.
Zeal. *n.* Earnestness, fervor, cordiality, ardor, passion.
Zealot. *n.* Enthusiast, bigot, fanatic, visionary.
Zealous. *adj.* Earnest, fervid, glowing, burning, passionate. *Anto.*, lukewarm.
Zenith. *n.* Top, apex, summit, pinnacle, climax. *Anto.*, nadir.
Zephyr. *n.* 1. Breeze. 2. West wind. *Anto.*, calm.
Zero. *n.* Cipher, naught, nothing.
Zest. *n.* Flavor, taste, savor, relish.
Zone. *n.* 1. Girdle, belt. 2. Clime, region.

A SELF-INSTRUCTOR IN THE GERMAN LANGUAGE.

BY THE NEW SYSTEM OF OBJECT-TEACHING, THE SIMPLEST METHOD KNOWN.

STUDENTS will readily concede that of all foreign languages the one which best deserves their attention is the German. The influence of the Teuton stock on American civilization and commerce is all-important, and as each year continues to bring thousands of German immigrants to our shores, it will be more and more felt. A practical illustration of this fact is shown in the cry for "German in the public schools" which is heard in the leading cities of the country at the present day. Eventually a knowledge of the language will become so essential in the spheres of commercial and professional life that the business or professional man who cannot conduct conversation and correspondence in German will find himself at a decided disadvantage compared with him who has acquired the language. Those who wish to do so will find in the following system of self-tuition a means of grounding themselves so thoroughly in the principles of the language that, with its lessons well learned, they will have no difficulty in conversing and corresponding intelligibly with Germans whom they may meet in the way of business or social converse. And, having accomplished so much, all that will be needed to gain a mastery of the language is careful reading of the standard works of German literature, which in time will bring fluency of both written and spoken expression.

THE ALPHABET.

The German alphabet consists of the following twenty-six letters:

ENGLISH CHARACTERS	GERMAN CHARACTERS	NAMES OF LETTERS.	PRONUNCIATION.
A	A a	ah	as *a* in *part*.
B	B b	bay	as in English.
C	C c	tsay	as *c* in *cape* if before *a*, *o*, *u* or a consonant, or when final.
D	D d	day	as in English.
E	E e	ay	as *a* in *fame* when long. as *e* in *bell* when short.
F	F f	ef	as in English.
G	G g	gay	as *g* in *go*.
H	H h	hah	like *h* in *horse*.
I	I i	e	as *i* in *sit*.
J	J j	yot	as *y* in *year*.
K	K k	kah	as in English.
L	L l	el	
M	M m	em	
N	N n	en	
O	O o	o	
P	P p	pay	
Q	Q q	koo	
R	R r	err	
S	S s ſ	es	as *s* in *sit*.
T	T t	tay	as in English.
U	U u	oo	as *oo* in *pool*.
V	V v	fow	as *f* in *feel*.
W	W w	vay	as *v* in *very*.
X	X x	iks	as *x* in *box*.
Y	Y y	ypsilon	as *y* in *system*.
Z	Z z	tset	as *ts* in *sits*.

VOWELS.

The simple vowels are a, e, i, o, u. Their sounds are given above.

COMPOUND VOWELS.

ä, *æ*, pronounced like *a* in *have*.

ö, *œ*, pronounced like *eu* in the French word *feu*, or *ou* in *touch*.

ü, *ue*, pronounced like *eeu*, or the *u* in the French word *sur*. The accurate sound of this, as well as of the ö, can only be learned from a German, as there are no similar sounds in English.

au, *au*, is pronounced like *ow* in *now*.

eu, *eu*, is like *oy* in *joy*.

CONSONANTS.

The g, *g*, has never the soft sound as in *genius*, but is either hard as in *gave*, or has the guttural sound of ch, which letter is sounded like the *ch* in the Scotch word *loch*. In the pronouncing column, the *g* and *ch* will be printed in italics whenever they should have the guttural sound. *Sch* is pronounced like *sh* in *ship*.

THE DEFINITE ARTICLE.

Masculine.	*Feminine.*	*Neuter.*
der	die	das, is the German Article.
dair	dee	das

THE INDEFINITE ARTICLE.

	Masculine.			*Feminine.*	
Nom.	ein Vater,	a father.	Nom.	eine Stadt,	a town.
Gen.	eines Vaters,	of a father.	Gen.	einer Stadt,	of a town.
Dat.	einem Vater,	to a father.	Dat.	einer Stadt,	to a town.
Acc.	einen Vater,	a father.	Acc.	eine Stadt,	a town.

Neuter.

Nom.	ein Schiff,	a ship.
Gen.	eines Schiffes,	of a ship.
Dat.	einem Schiffe,	to a ship.
Acc.	ein Schiff,	a ship.

COMBINATION OF ARTICLE AND NOUN.

DECLENSIONS.

The German language has three genders: Masculine, der; Feminine, die; Neuter, das; which form the definite Article.

The definite article is declined as well as the substantive, and examples are here given:

Masculine.

	Singular.		*Plural.*	
Nom.	der Mann,	the man.	die Männer,	the men.
Gen.	des Mannes,	of the man.	der Männer,	of the men.
Dat.	dem Manne,	to the man.	den Männern,	to the men.
Acc.	den Mann,	the man.	die Männer,	the men.

Feminine.

Nom.	die Frau,	the woman.	die Frauen,	the women.
Gen.	der Frau,	of the woman.	der Frauen,	of the women.
Dat.	der Frau,	to the woman.	den Frauen,	to the women.
Acc.	die Frau,	the woman.	die Frauen,	the women.

Neuter.

Nom.	das Pferd,	the horse.	die Pferde,	the horses.
Gen.	des Pferdes,	of the horse.	der Pferde,	of the horses.
Dat.	dem Pferde,	to the horse.	den Pferden,	to the horses.
Acc.	das Pferd,	the horse.	die Pferde,	the horses.

EXERCISES IN THE ARTICLE AND NOUN.

THE EARTH.

ENGLISH.	GERMAN.	PRONUNCIATION.
The earth	die Erde	dee airdai
a fire	ein Feuer	ine foyer
the water	das Waſſer	das vasser
the rainwater	das Regenwaſſer	das ragenvasser
the stream	der Strom	dair shtrome
the sea	die See	dee say
the weather	das Wetter	das vetter
the summer weather	das Sommerwetter	das summervetter
the winter weather	das Winterwetter	das vintervetter
the wind	der Wind	dair vinnd
the rain	der Regen	dair ragen
the storm	der Sturm	dair shtoorm
the hail	der Hagel	dair hahgel
the frost	der Froſt	dair frust
the summer	der Sommer	dair summer
the winter	der Winter	dair vinter
the snow	der Schnee	dair shnay
the ice	das Eis	das ice
the thunder	der Donner	dair duuner
the morning	der Morgen	dair morgen
a day	ein Tag	ine tahg
the midday	der Mittag	dair mittah*g*
the night	die Nacht	dee nacht
the moon	der Mond	dair mond
the sun	die Sonne	dee sonnai
a star	ein Stern	ine shtairn
the light	das Licht	das li*ch*t
a year	ein Jahr	ine yahr

THE HUMAN BODY.

The arm	der Arm	dair arm
the beard	der Bart	dair bart
the blood	das Blut	das bloot
the bosom	der Buſen	dair boosen
the breast (chest)	die Bruſt	dee broost
the eye	das Auge	das owgay
the ear	das Ohr	das ore
a chin	ein Kinn	ine kin
the eyebrows	die Augenbrauen	dee owgenbrowen
the elbows	der Elbogen	dair elbogen
the fist	die Fauſt	dee fowst
a finger	ein Finger	ine fing-er
the flesh	das Fleiſch	das flyshe
the foot	der Fuß	dair fooss
the hair	das Haar	das har
the hand	die Hand	dee hahnd
the right hand	die rechte Hand	dee rechtay hahnd
the left hand	die linke Hand	dee linkay hahnd
the heart	das Herz	das hairz
the hip	die Hüfte	dee hiftay
a knee	ein Knie	ine knee (*k pronounc'd*)
the lip	die Lippe	dee lippay
the neck	der Nacken	dair nahcken
the nose	die Naſe	dee nahzay.
a mouth	ein Mund	ine moond

THE FAMILY.

The father	der Vater	dair fahter
the grandfather	der Großvater	dair grossfahter
the stepfather	der Stiefvater	dair shteefahter
the fatherland	das Vaterland	das fahterland
the mother	die Mutter	dee mootter
a brother	ein Bruder	ine brooder
the sister	die Schweſter	dee shwester
the uncle	der Onkel	dair onkel
the aunt	die Tante	dee tahntay
the nephew	der Neffe	dair neffay
a niece	eine Nichte	ineay ni*ch*tay
the girl (maiden)	das Mädchen	das maid*ch*en
the man	der Mann	dair mahnn
the young man	der junge Mann	dair yoongay mahnn
the old man	der alte Mann	dair altay mahnn
the wife (woman)	das Weib	das vybe
a bride	eine Braut	ineay browt
the widow	die Wittwe	dee vitvay
the widower	der Wittwer	dair vitver
the guest	der Gaſt	dair gahst
the neighbor	der Nachbar	dair na*ch*bar
the friend	der Freund	dair froint

FOOD.

The beer	das Bier	das beer
the glass	das Glas	das glahs
the flask (bottle)	die Flaſche	dee flashay
the bread	das Brod	das brote
fresh bread	friſches Brod	frishes brote
the butter	die Butter	dee bootter
fresh butter	friſche Butter	frishay bootter

ENGLISH.	GERMAN.	PRONUNCIATION.
the cheese	der Käſe	dair caysay
the honey	der Honig	dair honig
the milk	die Milch	dee milch
the buttermilk	die Buttermilch	dee boottermilch
the oil	das Oel	das œl
the fish	der Fiſch	dair fish
the flesh (meat)	das Fleiſch	das flyshe
the wine	der Wein	dair vine
old wine	alter Wein	alter vine
the punch	der Punſch	dair poonch
the rum	der Rum	dair room
the water	das Waſſer	das vasser
the salt	das Salz	das saltz
the pepper	der Pfeffer	dair pfeffer
the salad	der Salat	dair salaht
the soup	die Suppe	dee sooppay
the beefsteak	das Beefſteak	das beefsteak
the pudding	der Pudding	dair poodding
the coffee	der Kaffee	dair kaffay
the tea	der Thee	dair tay
the chocolate	die Chokolade	dee chocolahday
the lemonade	die Limonade	dee limonahday

TOWN AND COUNTRY.

The house	das Haus	das house
the garden	der Garten	dair garten
the land	das Land	das lahnd
the market	der Markt	dair markt
the street	die Straße	dee strahssay
the church	die Kirche	dee keerchay
the mail	die Poſt	dee pust
the bank	die Bank	dee bank
the theater	das Theater	das tayahter
the hospital	das Hoſpital	das hospitahl
the coffee-house	das Kaffeehaus	das kaffayhouse
the palace	der Palaſt	dair palast
the harbor	der Hafen	dair hahfen
the field	das Feld	das feld
the dale (valley)	das Thal	das tahl
the wood (forest)	der Wald	dair vald
the bush	der Buſch	dair boosh
the heath	die Haide	dee hiday
the hill	der Hügel	dair heeugel
the mill	die Mühle	dee meeullay
the corn	das Korn	das korn
the straw	das Stroh	das shtro

TRADES AND PROFESSIONS.

The baker	der Bäcker	dair becker
the bookbinder	der Buchbinder	dair boochbinder
the book	das Buch	das booch
the doctor	der Doktor	dair doktor
the hat	der Hut	dair hoot
the hatter	der Hutmacher	dair hootmacher
the shoe	der Schuh	dair shoe
the shoemaker	der Schuhmacher	dair shoemacher
the razor	das Raſirmeſſer	das raseermesser
a barber	ein Barbier	ine barbeer
the glass	das Glas	das glahs
the glazier	der Gläſer	dair glaiser
the nail	der Nagel	dair nahgel
the saddle	der Sattel	dair sattel
the saddler	der Sattler	dair sattler
the mill	die Mühle	dee meeullay
the miller	der Müller	dair meeuller
the master	der Meiſter	dair miceter
dancing	tanzen	tanzen
the dancing-master	der Tanzmeiſter	dair tanzmiceter
the post	die Poſt	dee pust

ENGLISH.	GERMAN.	PRONUNCIATION.
the postmaster	der Poſtmeiſter	dair postmiceter
to ride	reiten	riten
the riding-master	der Rittmeiſter	dair rittmiceter
the school	die Schule	dee shoolay
the schoolmaster	der Schulmeiſter	dair shoolmiceter
the smith	der Schmied	dair shmit
the smithy	die Schmiede	dee shmeeday
the nailsmith	der Nagelſchmied	dair nahgelshmit
the goldsmith	der Goldſchmied	dair goldshmit
the coppersmith	der Kupferſchmied	dair koopfershmit
the weaver	der Weber	dair vayber
the king	der König	dair kœnig
the prince	der Prinz	dair prints
the baron	der Baron	dair bahrone
the officer	der Officier	dair offeetseer
the soldier	der Soldat	dair soldaht
the pope	der Pabſt	dair pahbst
the archbishop	der Erzbiſchof	dair airtsbishof
the bishop	der Biſchof	dair bishofe

CLOTHING.

The jacket	die Jacke	dee yackay
the shoe	der Schuh	dair shoe
the hat	der Hut	dair hoot
the brush	die Bürſte	dee beeurstay
the hairbrush	die Haarbürſte	dee harbeeurstay
the frock (coat)	der Frack	dair frak
the wool	die Wolle	dee vollay
the cravat	die Cravatte	dee cravahtte
the purse	die Börſe	dee bœrsay
the cap	die Kappe	dee kappay
the ring	der Ring	dair ring

BEASTS, BIRDS, FISHES, ETC.

The hound (dog)	der Hund	dair hoond
the cat	die Katze	dee kahtsay
the rat	die Ratte	dee rattay
the mouse	die Maus	dee mouse
the swine (pig)	das Schwein	das shvine
the hare	der Haſe	dair hahzay
the roe	das Reh	das ray
the ox	der Ochſe	dair ocksay
the cow	die Kuh	dee koo
the calf	das Kalb	das kalb
the sheep	das Schaaf	das shahf
the lamb	das Lamm	das lam
the fox	der Fuchs	dair fooks
the wolf	der Wolf	dair volf
the bear	der Bär	dair bær
the elephant	der Elephant	dair elefahnt
the camel	das Kameel	das cahmail
the swan	der Schwan	dair shvan
the falcon	der Falke	dair falkay
the goose	die Gans	dee gahns
the stork	der Storch	dair shtorch
the snipe	die Schnepfe	dee shnepfay
the raven	der Rabe	dair rahbay
the lark	die Lerche	dee lairchay
the crow	die Krahe	dee krayay
the nightingale	die Nachtigall	dee nachtigal
the cuckoo	der Kukuk	dair kookook
the swallow	die Schwalbe	dee shvalbay
the finch	der Finke	dair finkay
the sparrow	der Sperling	dair spairling
the fish	der Fiſch	dair fish
the carp	der Karpfe	dair carpfay
the herring	der Häring	dair hairing
the eel	der Aal	dair ahl
the frog	der Froſch	dair frush

ENGLISH.	GERMAN.	PRONUNCIATION.
the worm	der Wurm	dair voorm
the spider	die Spinne	dee shpinnay
the oyster	die Auſter	dee ouster
the crab	der Krebs	dair kreps
the flea	der Floh	dair flo
the fly	die Fliege	dee fleegay
the bee	die Biene	dee beenay
the wasp	die Weſpe	dee vespay
the snail	die Schnecke	dee shneckay

MINERALS AND METALS.

The gold	das Gold	das gult
the silver	das Silber	das silber
the copper	das Kupfer	das koopfer
the iron	das Eiſen	das eisen
the tin	das Zinn	das tsin
the steel	das Stahl	das shtahl
the zinc	das Zink	das tsink
the bronze	die Bronze	dee bronsay
the diamond	der Diamant	dair deeamahnt
the pearl	die Perle	dee pairlay
the coral	die Koralle	dee corallay
the marble	das Marmor	das marmor
the gypsum	der Gyps	dair gyps
the clay	der Lehm	dair lame
the chalk	der Kalk	dair calk
the coal	die Kohle	dee coalay
the earth	die Erde	dee airday
the sand	der Sand	dair sahnd
the stone	der Stein	dair stine

SHIPS AND SHIPPING.

The ship	das Schiff	das shiff
the boat	das Boot	das boat
the ship-of-the-line	das Linienſchiff	das leenyenshiff
the fisherboat	das Fiſcherboot	das fisherboat
the anchor	der Anker	dair anker
the deck	das Deck	das deck
the flag	die Flagge	dee flaggay
the mast	der Maſt	dair mast
the foremast	der Vordermaſt	dair fordermast
the sail	das Segel	das saygel
the strand	der Strand	dair shtrand
the rudder	das Ruder	das rooder
the net	das Netz	das netz
the lading (freight)	die Ladung	dee lahdung
the freight	die Fracht	dee fra*ch*t
the coast	die Küſte	dee kistay
the cliff	die Klippe	dee klippay
the downs	die Dünen	dee deeunen
the ground	der Grund	dair groond
the storm	der Sturm	dair shtoorm
the fleet	die Flotte	dee flottay
the frigate	die Fregatte	dee fregattay

TIME AND SEASONS.

The century	das Jahrhundert	das yarhoondert
the year	das Jahr	das yar
the month	der Monat	dair monat
the week	die Woche	dee vo*ch*ay
the day	der Tag	dair ta*g*
the hour	die Stunde	dee shtoonday
half-an-hour	eine halbe Stunde	inay halbay shtoonday
the minute	die Minute	dee minoohtay
the second	die Sekunde	dee secoonday
the seasons	die Jahreszeiten	dee yarestsiten
spring	Frühling	freeling
summer	Sommer	summer
autumn	Herbſt	hairbst

ENGLISH.	GERMAN.	PRONUNCIATION.
winter	Winter	vinter
January	Januar	yanooar
February	Februar	febrooar
March	März	mayrts
April	April	apreel
May	Mai	my
June	Juni	yoonee
July	Juli	yoolee
August	Auguſt	owgoost
September	September	september
October	October	october
November	November	november
December	Dezember	daytsember
the days of the week	die Wochentage	dee voc*h*entahgay
Sunday	Sonntag	sunta*g*
Monday	Montag	moneta*g*
Tuesday	Dienſtag	deensta*g*
Wednesday	Mittwoch	mittvo*ch*
Thursday	Donnerſtag	donnersta*g*
Friday	Freitag	freitah*g*
Saturday	Samſtag / Sonnabend	sahmstah*g* / sunnahbend
The holiday	der Feiertag	dair fireta*g*
Christmas	Weihnachten	vina*ch*ten
Easter	Oſtern	ohstern
Whitsuntide	Pfingſten	pfingsten
the morning	der Morgen	dair morgen
noon	Mittag	mitta*g*
the afternoon	der Nachmittag	dair na*ch*mitta*g*
the evening	der Abend	dair abend
the night	die Nacht	dee na*ch*t
midnight	Mitternacht	mitterna*ch*t

THE HOME.

The bell	die Glocke	dee gluckay
the knocker	der Klopfer	dair klupfer
to open	öffnen	œffnen
the servant	die Magd	dee ma*g*d
the staircase	die Treppe	dee treppay
the room	das Zimmer	das tsimmer
the drawing-room	das Putzzimmer	das pootstsimmer
the sitting-room	das Wohnzimmer	das vohntsimmer
the dining-room	das Eßzimmer	das esstsimmer
the sleeping-room	das Schlafzimmer	das shlahftsimmer
the kitchen	die Küche	dee keeuc*h*ay
the cellar	der Keller	dair keller
the window	das Fenſter	das fenster
the stove	der Ofen	dair ohfen
the chimney	der Kamin	dair kameen
the looking-glass	der Spiegel	dair shpeegel
the table	der Tiſch	dair tish
the chair	der Stuhl	dair shtool
the arm-chair	der Armſtuhl	dair armshtool
the carpet	der Teppich	dair teppi*ch*
the chest of drawers	die Kommode	dee commohday
the sofa	das Sopha	das sofa
the candlestick	der Leuchter	dair loy*ch*ter
the candle	das Licht	das li*ch*t
the lamp	die Lampe	dee lampay
the wick	der Docht	dair doc*h*t
the oil	das Oel	das œl
to light	anzünden	antsinden
the bed	das Bett	das bet
the counterpane	die Bettdecke	dee betdeckay
the sheets	die Betttücher	dee betteec*h*er
the pillow	das Kopfkiſſen	das kupfkissen
the basin	das Waſchbecken	das vashbecken
the soap	die Seife	dee sifay
the towel	das Handtuch	das handtooc*h*

ENGLISH.	GERMAN.	PRONUNCIATION.
warm water	warmes Waſſer	varmes vasser
cold water	kaltes Waſſer	kaltes vasser
hot water	heißes Waſſer	hyses vasser
to wash	waſchen	vashen
the comb	der Kamm	dair kamm
to comb	kämmen	kemmen

FRUITS, TREES AND FLOWERS.

The apple	der Apfel	dair apfel
the apple-tree	der Apfelbaum	dair apfelbowm
the pear	die Birne	dee beernay
the pear-tree	der Birnbaum	dair beernbowm
the plum	die Pflaume	dee pflowmay
the plum-tree	der Pflaumenbaum	dair pflowmenbowm
the cherry	die Kirſche	dee keershay
the chestnut	die Kaſtanie	dee kastanyay
the peach	der Pfirſich	dair pfeersich
the apricot	die Apricoſe	dee apreecohsay
the orange	die Apfelſine	dee apfelseenay
the lemon	die Citrone	dee tsitronay
the grape	die Weintraube	dee vinetrowbay
the nut	die Nuß	dee nooss
the walnut	die Wallnuß	dee vallnooss
the currant	die Johannisbeere	dee yohanisbairay
the gooseberry	die Stachelbeere	dee shtachelbairay
the raspberry	die Himbeere	dee himbairay
the blackberry	die Brombeere	dee brombairay
the strawberry	die Erdbeere	dee airdbairay
the oak	die Eiche	dee ichay
the beech	die Buche	dee boochay
the poplar	die Pappel	dee pappel
the lime	die Linde	dee linday
the ash	die Eſche	dee eshay
the fir	die Tanne	dee tannay
the willow	die Weide	dee viday
the rose	die Roſe	dee rosay
the pink	die Nelke	dee nelkay
the tulip	die Tulpe	dee toolpay
the lily	die Lilie	dee leeleay
the violet	das Veilchen	das filechen
the lilac	der Flieder	dair fleeder
the lily of the valley	das Maiblümchen	das mybleumchen

THE TOILET.

The clothes	die Kleider	dee klider
the coat	der Rock	dair ruck
the trowsers	die Hoſen	dee hozen
the pocket	die Taſche	dee tashay
the buttons	die Knöpfe	dee knœpfay
the dressing-gown	der Schlafrock	dair shlahfruck
the slippers	die Pantoffeln	dee pantuffeln
the drawers	die Unterhoſen	dee oonterhosen
the stockings	die Strümpfe	dee streumpfay
the shirt	das Hemd	das hemt
the braces	die Hoſenträger	dee hosentrayger
the waistcoat	die Weſte	dee vestay
the boot	der Stiefel	dair shteefel
the boot-jack	der Stiefelknecht	dair shteefelknecht
the cap	die Mütze	dee mitsay
the gloves	die Handſchuhe	dee handshooay
the handkerchief	das Taſchentuch	das tashentooch
the watch	die Uhr	dee oor
the umbrella	der Regenſchirm	dair raygensheerm
the purse	die Börſe	dee bœrsay
the brush	die Bürſte	dee birstay
the comb	der Kamm	dair kamm
the apron	die Schürze	dee sheeurtsay
the fan	der Fächer	dair fecher
the dress	das Kleid	das klite

ENGLISH.	GERMAN.	PRONUNCIATION.
the petticoat	der Unterrock	dair oonterruck
the stays	das Schnürleib	der shneerlipe
the veil	der Schleier	dair shlire
the powder	das Puder	das pooder
the soap	die Seife	dee sifay
the tooth-powder	das Zahnpulver	das tsahnpoolfer

TRAVEL.

The voyage	die Reiſe	dee rizay
the traveller	der Reiſende	dair rizenday
the road	die Landſtraße	dee lahndshtrahsay
the railroad	die Eiſenbahn	dee isenbahn
the station	die Station	dee stahtzione
the train	der Zug	dair tsoog
the engine	die Maſchine	dee masheenay
the carriage	die Kutſche	dee kootshay
the wagon	der Wagen	dair vahgen
the departure	die Abreiſe	dee abrizay
the arrival	die Ankunft	dee ankoonft
the pass-port	der Paß	dair pass
the inn (hotel)	der Gaſthof	dair gasthof
the landlord	der Wirth	dair veert
the waiter	der Kellner	dair kelner
the bill	die Rechnung	dee rechnoong
the interpreter	der Dolmetſcher	dair dullmetsher
the luggage	das Gepäck	das gepeck
the trunk	der Koffer	dair cuffer
the carpetbag	der Reiſeſack	dair rizaysack

AT THE WRITING-DESK.

The paper	das Papier	das papeer
the writing-paper	das Schreibpapier	das shribepapeer
the writing	die Schrift	dee shrift
the sheet	der Bogen	dair bogen
the pen	die Feder	dee fayder
the steel-pen	die Stahlfeder	dee stahlfayder
the penknife	das Federmeſſer	das faydermesser
the inkstand	das Tintenfaß	das tintenfass
the ink	die Tinte	dee tintay
the pencil	der Bleiſtift	dair blystift
the scissors	die Scheere	dee shayray
the date	der Datum	der dahtoom
the direction	die Adreſſe	dee ahdressay
the mail	die Poſt	dee pust
the seal	das Petſchaft	das petshaft
the sealing-wax	der Siegellack	dair seegellac
the wafer	die Oblate	dee oblahtay
the ruler	das Lineal	das leenayahl
the letter	der Brief	dair breef
the note	das Billet	das bilyet

LANDS AND PEOPLES.

The country	das Land	das lahnd
the native land	das Vaterland	das fahterlahnd
the state	der Staat	dair shtaht
the empire	das Reich	das riche
the kingdom	das Königreich	das kœnigriche
Europe	Europa	oiropa
the European	der Europäer	dair oiropayer
America	Amerika	amayricah
the American	der Amerikaner	dair amayrikahner
Asia	Aſien	azien
Africa	Afrika	afrika
the East Indies	Oſtindien	ostindien
the West Indies	Weſtindien	vestindien
the United States	die vereinigten Staaten	dee verinigten stahten
Brazil	Braſilien	brahzeelien
England	England	englahnd
the Englishman	der Engländer	dair Englender

ENGLISH.	GERMAN.	PRONUNCIATION.
Ireland	Irland	eerlahnd
the Irishman	der Irländer	der eerlender
Scotland	Schottland	shutlahnd
the Scotchman	der Schotte	dair shuttay
France	Frankreich	frankri*ch*e
the Frenchman	der Franzoſe	dair frantsosay
Germany	Deutſchland	doytshlahnd
the German	der Deutſche	dair doytshay
Holland	Holland	hullahnd
the Dutchman	der Holländer	dair hullender
Austria	Oeſterreich	eceterri*ch*e
the Austrian	der Oeſterreicher	dair eceterri*ch*er
Prussia	Preußen	proyssen
the Prussian	der Preuße	dair proyssay
Russia	Rußland	roossland
the Russian	der Ruſſe	dair roossay
Sweden	Schweden	shvayden
the Swede	der Schwede	dair shvayday
Denmark	Dänemark	danemark
the Dane	der Däne	dair daynay
Switzerland	die Schweitz	dee shvyts
the Swiss	der Schweitzer	dair shvytser
Italy	Italien	eetalyen
the Italian	der Italiener	dair eetaleeayner
Spain	Spanien	shpanyen
the Spaniard	der Spanier	dair shpaneeyare
Greece	Griechenland	gree*ch*enlahnd
the Greek	der Grieche	deir gree*ch*ay
Turkey	die Türkei	dee teerki
the Turk	der Türke	dair teerkay
the Jew	der Jude	dair yooday
the Persian	der Perſier	dair perzier

THE ADJECTIVE.

The German adjective is placed before the substantive.

With the definite article it takes the termination in e; with the indefinite article or without the article, it takes the termination of its gender; as:

Der gute Vater, the good father; guter Vater, good father; ein guter Vater, a good father.

Die gute Mutter, the good mother; gute Mutter, good mother; eine gute Mutter, a good mother.

Das gute Kind, the good child; gutes Kind, good child; ein gutes Kind, a good child.

COMPARISON OF ADJECTIVES.

The comparative of a German adjective is formed by adding er to the positive, the superlative by adding ſte; as:

Klein, little — kleiner, smaller — kleinſte, smallest.

Reich, rich — reicher, richer — reichſte, richest.

The "than" following the comparative is translated by „als".

Er iſt kleiner als ich; he is smaller than I.

VOCABULARY OF ADJECTIVES.

White	weiß	vice
red	roth	rote
blue	blau	blou
brown	braun	brown
gray	grau	grou
green	grün	green
yellow	gelb	gelb
orange	orange	orahnge
purple	purpur	poorpoor
violet	violett	veeolet
old	alt	ahlt
young	jung	yoong
new	neu	noi
great	groß	gross
good	gut	goot

ENGLISH.	GERMAN.	PRONUNCIATION.
rich	reich	ri*ch*e
cold	kalt	kalt
warm	warm	varm
long	lang	lahng
high	hoch	hoa*ch*
full	voll	foll
cool	kühl	keel
near	nahe	nah
hard	hart	hart
light	leicht	ly*ch*t
wild	wild	villd
fat	fett	fet
fine	fein	fine
mild	mild	milld
deep	tief	teef
fresh	friſch	frish
ripe	reif	rife
unripe	unreif	oonrife
bitter	bitter	bitter
small	ſchmal	shmahl
wide	weit	vite
open	offen	uffen
loud	laut	lout
right	recht	re*ch*t
wise	weiſe	visay
blind	blind	blinnd
unwell	unwohl	oonvole
hot	heiß	hice
thick	dick	dick
neat	nett	net
thin	dünn	din
broad	breit	brite
round	rund	roond
false	falſch	fahlsh
sour	ſauer	sour
hollow	hohl	hole
sharp	ſcharf	sharf
flat	flach	fla*ch*
small	klein	kline
narrow	enge	engay
low	niedrig	needri*g*
beautiful	ſchön	schœn
handsome	hübſch	hibsch
ugly	häßlich	hesli*ch*
bad	ſchlecht	shle*ch*t
easy	leicht	lei*ch*t
heavy	ſchwer	shvair
soft	weich	vy*ch*e
true	wahr	vahr
short	kurz	koorts
far	weit	vite
sweet	ſüß	seess
hollow	hohl	hole
blunt	ſtumpf	shtoompf
delicious	köſtlich	kœstli*ch*
disagreeable	unangenehm	oonahngenaym
honest	ehrlich	ayrli*ch*
polite	höflich	hœfli*ch*
obliging	gefällig	gefelli*g*
kind	gütig	geeti*g*
prudent	klug	kloo*g*
stupid	dumm	doomm
ridiculous	lächerlich	le*ch*erli*ch*
reasonable	vernünftig	ferninfti*g*
happy	glücklich	glicklic*h*
unhappy	unglücklich	oonglicklic*h*
glad	froh	fro
satisfied	zufrieden	tsoofreeden
active	thätig	taiti*g*

ENGLISH.	GERMAN.	PRONUNCIATION.
proud	ſtolz	shtults
rude	grob	grupe
bold	kühn	keen
strong	ſtark	shtark
weak	ſchwach	shvach
attentive	aufmerkſam	owfmerksahm
clever	geſchickt	geshickt
sick	krank	krahnk
pale	blaß	blahss
healthy	geſund	gezoond
poor	arm	arm
empty	leer	lair
light	hell	hell
dark	dunkel	doonkel
dry	trocken	trocken
wet	naß	nahss
dirty	ſchmutzig	shmootsig
cheap	billig	billig
clean	rein	rine
tired	müde	meeday
angry	böſe	bœsay
merry	luſtig	loostig

CARDINAL NUMBERS.

One	ein, eins	ine, ines
two	zwei	tsvi
three	drei	dri
four	vier	feer
five	fünf	finf
six	ſechs	sex
seven	ſieben	seeben
eight	acht	acht
nine	neun	noyn
ten	zehn	tsane
eleven	elf	elf
twelve	zwölf	tsvelf
thirteen	dreizehn	drytsane
fourteen	vierzehn	feertsane
fifteen	fünfzehn	finftsane
sixteen	ſechszehn	sextsane
seventeen	ſiebenzehn	seebentsane
eighteen	achtzehn	achttsane
nineteen	neunzehn	noyntsane
twenty	zwanzig	tsvantzig
twenty-one	einundzwanzig	ineoondtsvantzig
twenty-two	zweiundzwanzig	tsvioondtsvantzig
twenty-three	dreiundzwanzig	dryoondtsvantzig
thirty	dreißig	drysig
forty	vierzig	feertzig
fifty	fünfzig	finftzig
sixty	ſechszig	sechtzig
seventy	ſiebenzig	seebenzig
eighty	achtzig	achtzig
ninety	neunzig	noyntzig
one hundred	hundert	hoondert
one hundred and one	hundert und eins	hoondert oond ines
one hundred and two	hundert und zwei	hoondert oond tsvi
two hundred	zwei hundert	tsvi hoondert
three hundred	drei hundert	dry hoondert
four hundred	vier hundert	feer hoondert
five hundred	fünf hundert	finf hoondert
six hundred	ſechs hundert	sex hoondert
seven hundred	ſieben hundert	seeben hoondert
eight hundred	acht hundert	acht hoondert
nine hundred	neun hundert	noyn hoondert
one thousand	tauſend	towsend
two thousand	zwei tauſend	tsvi towsend
three thousand	drei tauſend	dry towsend
ten thousand	zehn tauſend	tsane towsend
a million	eine Million	inay milleeone
one thousand eight hundred and fifty-nine.	ein tauſend acht hundert neunundfünfzig	ine towsend acht hoondert noyn oond finftsig

THE ORDINAL NUMBERS.

the first	der erſte	dair ayrstay
the second	der zweite	dair tsvitay
the third	der dritte	dair drittay
the fourth	der vierte	dair feertay
the fifth	der fünfte	dair finftay
the sixth	der ſechſte	dair sextag
the seventh	der ſiebente	dair seebentay
the eighth	der achte	dair achtay
the ninth	der neunte	dair noyntay
the tenth	der zehnte	dair tsanetay
the eleventh	der elfte	dair elftay
the twelfth	der zwölfte	dair tsvelftay
the thirteenth	der dreizehnte	dair drytsanetay
the fourteenth	der vierzehnte	dair feertsanetay
the fifteenth	der fünfzehnte	dair finftsanetay
the sixteenth	der ſechszehnte	dair sechtsanetay
the seventeenth	der ſiebenzehnte	dair seebentsanetay
the eighteenth	der achtzehnte	dair achtsanetay
the nineteenth	der neunzehnte	dair noyntsanetay
the twentieth	der zwanzigſte	dair tsvanzigstay
the twenty-first	der einundzwanzigſte	dair ineoondtsvantsigstay
twenty-second	der zweiundzwanzigſte	dair tsvioondtsvantsigstay
the twenty-third	der dreiundzwanzigſte	dair drioondtsvantsigstay
the thirtieth	der dreißigſte	dair drysigstay
the thirty-first	der einunddreißigſte	dair ineoonddrysigstay
the thirty-second	der zweiunddreißigſte	dair tsvioonddrysigstay
the fortieth	der vierzigſte	dair feertsigstay
the fiftieth	der fünfzigſte	dair finftsigstay
the sixtieth	der ſechszigſte	dair sechtsigstay
the seventieth	der ſiebenzigſte	dair seebentsigstay
the eightieth	der achtzigſte	dair achtsigstay
the ninetieth	der neunzigſte	dair noyntsigstay
the one hundredth	der hundertſte	dair hoonderstay
the one hundred and first	der hundertunderſte	dair hoondertoondayrstay
the two hundredth	der zweihundertſte	dairtsvihoondertstay
the three hundredth	der dreihundertſte	dairdrihoondertstay
the one thousandth	der tauſendſte	dair towsendstay

COLLECTIVE NUMBERS.

A pair	ein Paar	ine pahr
a dozen	ein Dutzend	ine dootsend
a score	zwanzig	tsvantsig
firstly	erſtens	ayrstens
secondly	zweitens	tsvitens
thirdly	drittens	drittens
the first time	das erſte Mal	das ayrstay mal
the second time	das zweite Mal	das tsvitay mal
once	einmal	inemal
twice	zweimal	tsvimal
thrice	dreimal	drymal
single	einfach	inefach
double	doppelt	duppelt
threefold	dreifach	dryfach
fourfold	vierfach	feerfach
one sort	einerlei	inerlye
two sorts	zweierlei	tsvierlye
three sorts	dreierlei	drierlye
four sorts	viererlei	feererlye
ten sorts	zehnerlei	tsanerlye

PRONOUNS.

I	ich	mine	mein
thou	Du	thine	Dein
he	er	his	ſein
she	ſie	her	ihr
we	wir	ours	unſer
you	Ihr	yours	Euer
they	ſie	theirs	ihr
this	dieſer	who, which	welcher
that	jener	who	wer
such	ſolcher	each, every one	jeder
somebody	jemand	nobody	niemand

The polite form of address in German is to use the pronoun Sie, instead of Du, in the second person singular. In that sense Sie is written with a capital letter.

THE VERB.

Before studying the regular verbs the student must learn by heart the auxiliary verbs, whose conjugations are as follows:

AUXILIARY VERBS.

Haben — to have.

INFINITIVE.

Present. haben, to have
Perfect. gehabt haben, to have had.
Future. haben werden, to be about to have.
Participles: *Present.* habend, having.
Perfect. gehabt, had.

INDICATIVE.		SUBJUNCTIVE.	
Present.			
ich habe,	I have	ich habe,	I may have
Du haſt,	thou hast	Du habeſt,	thou mayst have
er hat,	he has	er habe,	he may have
wir haben,	we have	wir haben,	we may have
Ihr habt,	you have	Ihr habet,	you may have
ſie haben,	they have	ſie haben,	they may have
Imperfect.			
ich hatte,	I had	ich hätte,	I might have
Du hatteſt,	thou hadst	Du hätteſt,	thou mightest have
er hatte,	he had	er hätte,	he might have
wir hatten,	we had	wir hätten,	we might have
Ihr hattet,	you had	Ihr hättet,	you might have
ſie hatten,	they had	ſie hätten,	they might have

Perfect.

I have had.	I may have had.
ich habe gehabt	ich habe gehabt
Du haſt gehabt	Du habeſt gehabt
er hat gehabt	er habe gehabt
wir haben gehabt	wir haben gehabt
Ihr habt gehabt	Ihr habet gehabt
ſie haben gehabt	ſie haben gehabt

Pluperfect.

I had had.	I might have had.
ich hatte gehabt	ich hätte gehabt
Du hatteſt gehabt	Du hätteſt gehabt
er hatte gehabt	er hätte gehabt
wir hatten gehabt	wir hätten gehabt
Ihr hattet gehabt	Ihr hättet gehabt
ſie hatten gehabt	ſie hätten gehabt

First Future.

I shall have.	If I shall have.
ich werde haben	ich werde haben
Du wirſt haben	Du werdeſt haben
er wird haben	er werde haben
wir werden haben	wir werden haben
Ihr werdet haben	Ihr werdet haben
ſie werden haben	ſie werden haben

INDICATIVE.	SUBJUNCTIVE.
Second Future.	
I shall have had.	If I shall have had.
ich werde gehabt haben	ich werde gehabt haben
Du wirſt gehabt haben	Du werdeſt gehabt haben
er wird gehabt haben	er werde gehabt haben
wir werden gehabt haben	wir werden gehabt haben
Ihr werdet gehabt haben	Ihr werdet gehabt haben
ſie werden gehabt haben	ſie werden gehabt haben
FIRST CONDITIONAL.	SECOND CONDITIONAL.
I should have.	I should have had.
ich würde haben	ich würde gehabt haben
Du würdeſt haben	Du würdeſt gehabt haben
er würde haben	er würde gehabt haben
wir würden haben	wir würden gehabt haben
Ihr würdet haben	Ihr würdet gehabt haben
ſie würden haben	ſie würden gehabt haben

IMPERATIVE.

habe,	have	haben wir,	let us have
habe er,	let him have	habt (Ihr),	have ye
		haben ſie,	let them have

Sein — to be.

INFINITIVE.

Present. ſein, to be.
Perfect. geweſen ſein, to have been.
Future. ſein werden, to be about to be.
Participles: *Present.* ſeiend, being.
Perfect. geweſen, been.

INDICATIVE.		SUBJUNCTIVE.	
Present.			
ich bin,	I am	ich ſei	I may be
Du biſt,	thou art	Du ſeiſt,	thou mayest be
er iſt,	he is	er ſei,	he is
wir ſind,	we are	wir ſeien,	we may be
Ihr ſeid,	you are	Ihr ſeiet,	you may be
ſie ſind,	they are	ſie ſeien,	they may be
Imperfect.			
ich war,	I was	ich wäre,	I might be
Du warſt,	thou wert	Du wäreſt,	thou mightest be
er war,	he was	er wäre,	he might be
wir waren,	we were	wir wären,	we might be
Ihr waret,	you were	Ihr wäret,	you might be
ſie waren,	they were	ſie wären,	they might be

Perfect.

I have been.	I may have been.
ich bin geweſen	ich ſei geweſen
Du biſt geweſen	Du ſeiſt geweſen
er iſt geweſen	er ſei geweſen
wir ſind geweſen	wir ſeien geweſen
Ihr ſeid geweſen	Ihr ſeiet geweſen
ſie ſind geweſen	ſie ſeien geweſen

Pluperfect.

I had been.	I might have been.
ich war geweſen	ich wäre geweſen
Du warſt geweſen	Du wäreſt geweſen
er war geweſen	er wäre geweſen
wir waren geweſen	wir wären geweſen
Ihr waret geweſen	Ihr wäret geweſen
ſie waren geweſen	ſie wären geweſen

First Future.

I shall be.	If I shall be.
ich werde ſein	ich werde ſein
Du wirſt ſein	Du werdeſt ſein
er wird ſein	er werde ſein
wir werden ſein	wir werden ſein
Ihr werdet ſein	Ihr werdet ſein
ſie werden ſein	ſie werden ſein

Second Future.

I shall have been.	If I shall have been.
ich werde geweſen ſein	ich werde geweſen ſein
Du wirſt geweſen ſein	Du werdeſt geweſen ſein
er wird geweſen ſein	er werde geweſen ſein
wir werden geweſen ſein	wir werden geweſen ſein
Ihr werdet geweſen ſein	Ihr werdet geweſen ſein
ſie werden geweſen ſein	ſie werden geweſen ſein

FIRST CONDITIONAL. I should be.	SECOND CONDITIONAL. I should have been.
ich würde ſein	ich würde geweſen ſein
Du würdeſt ſein	Du würdeſt geweſen ſein
er würde ſein	er würde geweſen ſein
wir würden ſein	wir würden geweſen ſein
Ihr würdet ſein	Ihr würdet geweſen ſein
ſie würden ſein	ſie würden geweſen ſein

IMPERATIVE.

ſei	be	ſeien wir	let us be
ſei er	let him be.	ſeid Ihr	be ye
		ſeien ſie	let them be

Werden—to become.

INFINITIVE.

Present. werden, to become.
Perfect. geworden, geworden ſein, to have become.
Future. werden werden, to be about to become.
Participles: Present. werdend, becoming.
Perfect. geworden, become.

INDICATIVE.		SUBJUNCTIVE.	
Present.			
ich werde	I become	ich werde	I may become
Du wirſt	thou becomest	Du werdeſt	thou mayest become
er wird	he becomes	er werde	he may become
wir werden	we become	wir werden	we may become
Ihr werdet	you become	Ihr werdet	you may become
ſie werden	they become	ſie werden	they may become
Imperfect.			
ich wurde	I became	ich würde	I might become
Du wurdeſt	thou becamest	Du würdeſt	thou mightest become
er wurde	he became	er würde	he might become
wir wurden	we became	wir würden	we might become
Ihr wurdet	you became	Ihr würdet	you might become
ſie wurden	they became	ſie würden	they might become

Perfect.

I have become.	I may have become.
ich bin geworden	ich ſei geworden
Du biſt geworden	Du ſeiſt geworden
er iſt geworden	er ſei geworden
wir ſind geworden	wir ſeien geworden
Ihr ſeid geworden	Ihr ſeiet geworden
ſie ſind geworden	ſie ſeien geworden

Pluperfect.

I had become.	I might have become.
ich war geworden	ich wäre geworden
Du warſt geworden	Du wäreſt geworden
er war geworden	er wäre geworden
wir waren geworden	wir wären geworden
Ihr waret geworden	Ihr wäret geworden
ſie waren geworden	ſie wären geworden

First Future.

I shall become.	If I shall become.
ich werde werden	ich werde werden
Du wirſt werden	Du werdeſt werden
er wird werden	er werde werden
wir werden werden	wir werden werden
Ihr werdet werden	Ihr werdet werden
ſie werden werden	ſie werden werden

Second Future.

I shall have become.	If I shall have become.
ich werde geworden ſein	ich werde geworden ſein
Du wirſt geworden ſein	Du werdeſt geworden ſein
er wird geworden ſein	er werde geworden ſein
wir werden geworden ſein	wir werden geworden ſein
Ihr werdet geworden ſein	Ihr werdet geworden ſein
ſie werden geworden ſein	ſie werden geworden ſein

FIRST CONDITIONAL. I should become.	SECOND CONDITIONAL. I should have become.
ich würde werden	ich würde geworden ſein
Du würdeſt werden	Du würdeſt geworden ſein
er würde werden	er würde geworden ſein
wir würden werden	wir würden geworden ſein
Ihr würdet werden	Ihr würdet geworden ſein
ſie würden werden	ſie würden geworden ſein

IMPERATIVE.

werde (Du)	become thou	werden wir	let us become
werde er	let him become	werdet Ihr	become ye
		werden ſie	let them become

Mögen—to may, to like.

INDICATIVE.		SUBJUNCTIVE.	
Present.			
I may.		I may.	
ich mag		ich möge	
Du magſt		Du mögeſt	
er mag		er möge	
wir mögen		wir mögen	
Ihr mögt		Ihr möget	
ſie mögen		ſie mögen	
Imperfect.	ich mochte		ich möchte
Perfect.	ich habe gemocht		ich habe gemocht
Pluperfect.	ich hatte gemocht		ich hätte gemocht
1st Future.	ich werde mögen		ich werde mögen
2d Future.	ich werde gemocht haben		ich werde gemocht haben

First Conditional. ich würde mögen.
Second Conditional. ich würde gemocht haben.

Wollen—to be willing.

INDICATIVE.		SUBJUNCTIVE.	
Present.			
I am willing.		I may be willing.	
ich will		ich wolle	
Du willſt		Du wolleſt	
er will		er wolle	
wir wollen		wir wollen	
Ihr wollet		Ihr wollet	
ſie wollen		ſie wollen	
Imperfect.	ich wollte		ich wollte
Perfect.	ich habe gewollt		ich habe gewollt
Pluperfect.	ich hatte gewollt		ich hätte gewollt
1st Future.	ich werde wollen		ich werde wollen
2d Future.	ich werde gewollt haben		ich werde gewollt haben

First Conditional. ich würde wollen.
Second Conditional. ich würde gewollt haben.

Sollen—to be obliged: I shall, I ought.

INDICATIVE.		SUBJUNCTIVE.	
Present.			
I shall.		I shall.	
ich ſoll		ich ſolle	
Du ſollſt		Du ſolleſt	

er ſoll	er ſolle
wir ſollen	wir ſollen
Ihr ſollet	Ihr ſollet
ſie ſollen	ſie ſollen
Imperfect. ich ſollte	ich ſollte
Perfect. ich habe geſollt	ich habe geſollt
Pluperfect. ich hatte geſollt	ich hätte geſollt
1st Future. ich werde ſollen	ich werde ſollen
2d Future. ich werde geſollt haben	ich werde geſollt haben

First Conditional. ich würde ſollen.
Second Conditional. ich würde geſollt haben.

Können—to be able.

INDICATIVE. *Present.*	SUBJUNCTIVE.
I am able, I can.	I may be able.
ich kann	ich könne
Du kannſt	Du könneſt
er kann	er könne
wir können	wir können
Ihr könnet	Ihr könnet
ſie können	ſie können
Imperfect. ich konnte	ich könnte
Perfect. ich habe gekonnt	ich habe gekonnt
Pluperfect. ich hatte gekonnt	ich hätte gekonnt
1st Future. ich werde können	ich werde können
2d Future. ich werde gekonnt haben	ich werde gekonnt haben

First Conditional. ich würde können.
Second Conditional. ich würde gekonnt haben.

Dürfen—to be allowed, to dare.

INDICATIVE. *Present.*	SUBJUNCTIVE.
I am allowed.	I may be allowed.
ich darf	ich dürfe
Du darfſt	Du dürfeſt
er darf	er dürfe
wir dürfen	wir dürfen
Ihr dürfet	Ihr dürfet
ſie dürfen	ſie dürfen
Imperfect. ich durfte	ich dürfte
Perfect. ich habe gedurft	ich habe gedurft
Pluperfect. ich hatte gedurft	ich hätte gedurft
1st Future. ich werde dürfen	ich werde dürfen
2d Future. ich werde gedurft haben	ich werde gedurft haben

First Conditional. ich würde dürfen.
Second Conditional. ich würde gedurft haben.

Müſſen—to be obliged.

INDICATIVE. *Present.*	SUBJUNCTIVE.
I am obliged, I must.	I may be obliged.
ich muß	ich müſſe
Du mußt	Du müſſeſt
er muß	er müſſe
wir müſſen	wir müſſen
Ihr müßt	Ihr müſſet
ſie müſſen	ſie müſſen
Imperfect. ich mußte	ich müßte
Perfect. ich habe gemußt	ich habe gemußt
Pluperfect. ich hatte gemußt	ich hätte gemußt
1st Future. ich werde müſſen	ich werde müſſen
2d Future. ich werde gemußt haben	ich werde gemußt haben

First Conditional. ich würde müſſen.
Second Conditional. ich würde gemußt haben.

Laſſen—to let.

INDICATIVE. *Present.*	SUBJUNCTIVE.
I let.	I may be let.
ich laſſe	ich laſſe
Du laſſeſt	Du laſſeſt
er läßt	er läßt
wir laſſen	wir laſſen
Ihr laſſet	Ihr laſſet
ſie laſſen	ſie laſſen
Imperfect. ich ließ	ich ließe
Perfect. ich habe gelaſſen	ich habe gelaſſen
Pluperfect. ich hatte gelaſſen	ich hätte gelaſſen
1st Future. ich werde laſſen	ich werde laſſen
2d Future. ich werde gelaſſen haben	ich werde gelaſſen haben

First Conditional. ich würde laſſen.
Second Conditional. ich würde gelaſſen haben.

IMPERATIVE.

laß Du	laſſen wir
laß er	laſſet Ihr
	laſſen ſie

THE REGULAR VERB.

The rule for the formation of the regular verb is very simple. It runs: The present tense is formed by dropping the n of the infinitive; the imperfect by dropping the final e of the present and adding te; the past participle by dropping the final e of the imperfect and prefixing ge. For example: Infinitive, leben, to live; present, ich lebe, I live; imperfect, ich lebte, I lived; past participle, gelebt, lived.

Active Voice.

Leben—to live.

INFINITIVE.

Present. leben, to live.
Perfect. gelebt haben, to have lived.
Future. leben werden, to be about to live.
Participles: Present. lebend, living.
Perfect. gelebt, lived.

INDICATIVE. *Present.*		SUBJUNCTIVE.	
ich lebe	I live	ich lebe	I may live
Du lebſt	thou livest	Du lebeſt	thou mayest live
er lebt	he lives	er lebe	he may live
wir leben	we live	wir leben	we may live
Ihr lebt	you live	Ihr lebet	you may live
ſie leben	they live	ſie leben	they may live
Imperfect.			
ich lebte	I lived	ich lebte	I might live
Du lebteſt	thou livedst	Du lebteſt	thou mightest live
er lebte	he lived	er lebte	he might live
wir lebten	we lived	wir lebten	we might live
Ihr lebtet	you lived	Ihr lebtet	you might live
ſie lebten	they lived	ſie lebten	they might live

Perfect.

I have lived.	I may have lived.
ich habe gelebt	ich habe gelebt
Du haſt gelebt	Du habeſt gelebt
er hat gelebt	er habe gelebt
wir haben gelebt	wir haben gelebt
Ihr habt gelebt	Ihr habet gelebt
ſie haben gelebt	ſie haben gelebt

Pluperfect.

I had lived.	I might have lived.
ich hatte gelebt	ich hätte gelebt
Du hatteſt gelebt	Du hätteſt gelebt

er hatte gelebt	er hätte gelebt
wir hatten gelebt	wir hätten gelebt
Ihr hattet gelebt	Ihr hättet gelebt
ſie hatten gelebt	ſie hätten gelebt

First Future.

I shall live.	If I shall live.
ich werde leben	ich werde leben
Du wirſt leben	Du werdeſt leben
er wird leben	er werde leben
wir werden leben	wir werden leben
Ihr werdet leben	Ihr werdet leben
ſie werden leben	ſie werden leben

Second Future.

I shall have lived.	If I shall have lived.
ich werde gelebt haben	ich werde gelebt haben
Du wirſt gelebt haben	Du werdeſt gelebt haben
er wird gelebt haben	er werde gelebt haben
wir werden gelebt haben	wir werden gelebt haben
Ihr werdet gelebt haben	Ihr werdet gelebt haben
ſie werden gelebt haben	ſie werden gelebt haben

FIRST CONDITIONAL.	SECOND CONDITIONAL.
I should live.	I should have lived.
ich würde leben	ich würde gelebt haben
Du würdeſt leben	Du würdeſt gelebt haben
er würde leben	er würde gelebt haben
wir würden leben	wir würden gelebt haben
Ihr würdet leben	Ihr würdet gelebt haben
ſie würden leben	ſie würden gelebt haben

IMPERATIVE.

lebe (Du)	live (thou)	leben wir	let us live
lebe er	let him live	lebet (Ihr)	live (ye)
		leben ſie	let them live

VOCABULARY OF VERBS.

To eat	eſſen	essen
to drink	trinken	trinken
to dream	träumen	troymen
to wash	waſchen	vashen
to comb	kämmen	kemmen
to go	gehen	gayen
to speak	ſprechen	shpre*ch*en
to laugh	lachen	la*ch*en
to think	denken	denken
to learn	lernen	lairnen
to bathe	baden	bahden
to break	brechen	bre*ch*en
to bite	beißen	bisen
to cost	koſten	custen
to hear	hören	hœren
to help	helfen	helfen
to give	geben	gayben
to make	machen	ma*ch*en
to do	thun	toon
to ride	reiten	riten
to say	ſagen	sahgen
to send	ſenden	senden
to seek	ſuchen	soo*ch*en
to breakfast	frühſtücken	freeshticken
to dine	ſpeiſen	shpeyzen
to sup	zu Abend eſſen	tsoo ahbend essen
to arrive	ankommen	ankummen
to depart	abreiſen	abrizen
to meet	treffen	treffen
to be tired	müde ſein	meeude seyn
to be sleepy	ſchläfrig ſein	shlayfrig seyn
to excuse	entſchuldigen	entshooldigen
to understand	verſtehen	fairshtayen
to believe	glauben	glowben
to know	wiſſen	vissen
to write	ſchreiben	shriben
to read	leſen	layzen
to pronounce	ausſprechen	owsshpre*ch*en
to translate	überſetzen	eebersetsen
to recollect	ſich erinnern	si*ch* erinnern
to forget	vergeſſen	fairgessen
to promise	verſprechen	fairshpre*ch*en
to expect	erwarten	airvarten
to converse	unterhalten	oonterhalten
to express	ausdrücken	owsdricken
to explain	erklären	airklayren
to tell	ſagen	saagen
to call	rufen	roofen
to weep	weinen	vinen
to recommend	empfehlen	empfaylen
to receive	empfangen	empfangen
to send	ſchicken	shicken
to buy	kaufen	kowfen
to pay	bezahlen	betsahlen
to order	beſtellen	beshtellen
to furnish	liefern	leefern
to sell	verkaufen	fairkow*f*en
to reply	antworten	antvorten

ADVERBS.

Yes	ja / jawohl	yah / yahvole
indeed	in der That	in dair taht
truly	wahrlich	vaarli*ch*
certainly	gewiß	geviss
surely	ſicherlich	si*ch*erli*ch*
only	nur	noor
some	etwas	etvas
nothing	nichts	ni*ch*ts
much	viel	feel
quite	gänzlich	gents
very	ſehr	sare
so	ſo	so
thus	alſo	also
how	wie	vee
no	nein	nine
not	nicht	ni*ch*t
but	nur	noor
enough	genug	genoo*g*
scarcely	kaum	kowm
all	ganz	gants
almost	beinahe	bynahe
here	hier	heer
there	da	da
where	wo	vo
in	herein	herine
out	heraus	herows
then	denn	den
now	jetzt	yetst
soon	bald	bald
till	bis	bis
seldom	ſelten	selten
since	ſeit	site
ever	immer	immer
never	nie	nee
oft	oft	uft
already	ſchon	schone
to-day	heute	hoytay
yesterday	geſtern	gestern
late	ſpät	shpate
why?	warum?	varoom?
because	weil	vile

ENGLISH.	GERMAN.	PRONUNCIATION.
if	wenn	ven
perhaps	vielleicht	feellyc*h*t

PREPOSITIONS.

Above	über	eeuber
about	um	oom
after	nach	na*ch*
against	gegen	gaygen
before	vor	fore
of	von	fun
over	über	eeuber
since	seit	site
for	für	feeur
from	von	fun
in	in	in
near	nahe	nahay
under	unter	oonter
up	auf	owf
with	mit	mit

CONJUNCTIONS.

And	und	oont
but	aber	ahber
also	auch	ou*ch*
even	sogar	sogar
or	oder	oder
nor	noch	nu*ch*
yet	doch	du*ch*
because	weil	vile
that	daß	das
therefore	daher	dahair

CONVERSATION IN GERMAN.

PHRASES OF AFFIRMATION.

ENGLISH.	GERMAN.	PRONUNCIATION.
It is true.	Es ist wahr.	Es ist var.
It is so.	Es ist so.	Es ist so.
I believe it.	Ich glaube es.	I*ch* glowbay es.
I think so,	Ich denke es.	I*ch* denkay es.
I say yes,	Ich sage ja.	I*ch* sahgay yah,
I say it is.	Ich sage es ist.	I*ch* sahgay es ist,
I am certain,	Ich bin gewiß.	I*ch* bin gayviss.
I am certain of it,	Ich bin dessen gewiß.	I*ch* bin dessen gayviss.
You are right.	Sie haben Recht.	See haaben rec*h*t.
You are quite right.	Sie haben ganz Recht.	See haaben gantz rec*h*t.
I know it.	Ich weiß es.	I*ch* vice es.
I know it well.	Ich weiß es genau.	I*ch* vice es genow.
I know him.	Ich kenne ihn.	I*ch* kenne een.
I know it positively.	Ich weiß es sicher.	I*ch* vice es sic*h*er.
I promise it.	Ich verspreche es.	I*ch* vershprec*h*ay es.
I promise it to you.	Ich verspreche es Ihnen.	I*ch* vershprec*h*ay es eenen.
I give it.	Ich gebe es.	I*ch* gaybay es.
I give it to you.	Ich gebe es Ihnen.	I*ch* gaybay es eenen.
I will give it to you.	Ich will es Ihnen geben.	I*ch* vill es eenen gayben.
You are wrong.	Sie haben Unrecht.	See haaben oonrec*h*t.
He is wrong.	Er hat Unrecht.	Air hat oonrec*h*t.
I believe him.	Ich glaube ihm.	I*ch* glowbay eem.
Very well.	Sehr wohl. / Sehr gut.	Sare vole. / Sare goot.

PHRASES OF NEGATION.

No.	Nein.	Nine.
I say no.	Ich sage nein.	I*ch* saagay nine.
I say it is not.	Ich sage es ist nicht.	I*ch* saagay es ist nic*h*t.
It is not so.	Es ist nicht so.	Es ist nic*h*t so.
It is not true.	Es ist nicht wahr.	Es ist nic*h*t var.
I say nothing.	Ich sage nichts.	I*ch* saagay nic*h*ts.
He is not here.	Er ist nicht hier.	Air ist nic*h*t heer.
I have it not.	Ich habe es nicht.	I*ch* haabay es nic*h*t.
He has it not.	Er hat es nicht.	Air hat es nic*h*t.
We have it not.	Wir haben es nicht.	Veer haaben es nic*h*t.
You have it not.	Ihr habt es nicht.	Eer haabt es nic*h*t.
He said no.	Er sagte nein.	Air saagtay nine.
Has he said no?	Hat er nein gesagt?	Hat air nine gesaag*t*?
Has he said nothing?	Hat er nichts gesagt?	Hat air nic*h*ts gesaag*t*?
I have not heard it.	Ich habe es nicht gehört.	I*ch* haabay es nic*h*t gehœrt.
You are quite wrong.	Sie haben durchaus Unrecht.	See haaben doorc*h*ouse oonrec*h*t.

PHRASES OF INTERROGATION.

Who?	Wer?	Vair?
Who was it?	Wer war es?	Vair var es?
What is it?	Was ist es?	Vas ist es?
Who is it?	Wer ist es?	Vair ist es?
Did you say it?	Sagten Sie es?	Saagten see es?
What are you doing?	Was thun Sie?	Vas toon see?
What is he doing?	Was thut er?	Vas toot air?
Tell me.	Sagen Sie mir.	Saagen see meer.
Will you tell me?	Wollen Sie mir sagen?	Vollen see meer saagen?
How are you?	Wie geht's?	Vee gates?
How is he?	Wie geht's ihm?	Vee gates eem?
What for?	Wofür?	Vofeer?
Why?	Warum?	Varoom?
Why do you ask?	Warum fragten Sie?	Varoom fraagen see?
Why shall I go?	Warum soll ich gehen?	Varoom sull i*ch* gayen?
What do you say?	Was sagen Sie?	Vas saagen see?
Do you hear?	Hören Sie?	Hœrdn see?
I don't speak to you.	Ich spreche mit Ihnen nicht.	I*ch* shprec*h*ay mit eenen nic*h*t.
Do you understand?	Verstehen Sie?	Fershtayen see?
Listen!	Hören Sie!	Hœren see!
Come here.	Kommen Sie hierher.	Kummen see heerhair.
What is that?	Was ist das?	Vas ist das?
Answer.	Antworten Sie.	Antvorten see.
Why don't you answer?	Warum antworten Sie nicht?	Varoom antvorten see nic*h*t?
What do you mean by that?	Was meinen Sie damit?	Vas minen see damit?
You speak German, I suppose?	Ich vermuthe Sie sprechen Deutsch.	I*ch* fermootay see shprec*h*en doytsh.
Very little, sir.	Sehr wenig, mein Herr.	Sair vani*g*, mine hair.
Do you know Mr. H.?	Kennen Sie Herrn H.?	Kennen see hairn ha?
I know him by sight.	Ich kenne ihn von ansehen.	I*ch* kennay een fun ansane.
I know him by name.	Ich kenne ihn bei Namen.	I*ch* kennay een by nahmen.
I know him well.	Er ist mir wohl bekannt.	Air ist meer vole baykant.
What do you call that?	Wie nennen Sie das?	Vee nennen see das?
What is that in German?	Wie heißt das auf Deutsch?	Vee histe das owf doytsh?
What does that mean?	Was heißt das?	Vas histe das?
Why do you speak?	Warum sprechen Sie?	Varoom shprec*h*en see?
Why are you silent?	Warum schweigen Sie?	Varoom shvigen see?
Why did you go?	Warum gingen Sie?	Varoom gingen see?
Is it ready?	Ist es fertig?	Ist es fairtig?
Have you heard?	Haben Sie gehört?	Haaben see gehœrt?
Do you hear?	Hören Sie?	Hœren see?

ENGLISH.	GERMAN.	PRONUNCIATION.
Where is she?	Wo ist sie?	Vo ist see?
Where are you?	Wo sind Sie?	Vo sind see?
Where are you going?	Wo gehen Sie hin?	Vo gayen see hin?
Where do you come from?	Wo kommen Sie her?	Vo kummen see hair?
Where were you?	Wo waren Sie?	Vo varen see?
What?	Was?	Vas?
What is that?	Was ist das?	Vas ist das?
What o'clock is it?	Wie viel Uhr ist es?	Veefeel oor ist es?
What have you?	Was haben Sie?	Vas haaben see?
What do you say?	Was sagen Sie?	Vas saagen see?
What do you want?	Was wollen Sie?	Vas vullen see?
What will you do?	Was wollen Sie thun?	Vas vullen see toon?

PHRASES OF COMMAND.

Come away!	Kommen Sie fort!	Kummen see fort!
Come here!	Kommen Sie hierher.	Kummen see heerhair!
Go there!	Gehen Sie dorthin!	Gayen see dort-hin!
Come back!	Kommen Sie zurück!	Kummen see tsoorick!
Go on!	Gehen Sie weiter!	Gayen see viter!
Sit down!	Setzen Sie sich!	Setsen see *sich!*
Stand still!	Stehen Sie still!	Shtayen see shtill!
Wait!	Warten Sie!	Varten see!
Wait for me!	Warten Sie auf mich!	Varten see owf *mich!*
Wait a little!	Warten Sie ein wenig!	Varten see ine vayn*ig!*
Make haste!	Machen Sie schnell!	Ma*ch*en see shnel!
Be quick!	Beeilen Sie sich!	Bay-ilen see *sich!*
Follow me!	Folgen Sie mir!	Fulgen see meer!
Tell him!	Sagen Sie ihm!	Saagen see eem!
Call him!	Rufen Sie ihn!	Roofen see een!
Speak!	Sprechen Sie!	Shpre*ch*en see!
Eat!	Essen Sie!	Essen see!
Drink!	Trinken Sie!	Trinken see!
Hear!	Hören Sie!	Hœren see!
Hear me!	Hören Sie mich!	Hœren see mi*ch!*
Look at me!	Sehen Sie mich an!	Sayen see mi*ch* an!
Begin!	Fangen Sie an!	Fangen see an!
Continue!	Fahren Sie fort!	Faaren see fort!
Stop!	Halt!	Halt!
Tell me!	Sagen Sie mir!	Saa*g*en see meer!
Tell it to him!	Sagen Sie es ihm!	Saagen see es eem!
Speak to him!	Sprechen Sie mit ihm!	Shpre*ch*en see mit eem!
Be quiet!	Seien Sie ruhig!	Syen see roo*ig!*
Go!	Gehen Sie!	Gayen see!
Go to him!	Gehen Sie zu ihm!	Gayen see tsoo eem!
Go to bed!	Gehen Sie zu Bette!	Gayen see tsoo bettay!
Fetch it!	Holen Sie es!	Holen see es!
Bring it!	Bringen Sie es!	Bringen see es!
Bring it to me!	Bringen Sie es mir!	Bringen see es meer!
Let it be!	Lassen Sie es sein!	Lassen see es sine!

EVERY-DAY UTTERANCES.

Tell me!	Sagen Sie mir.	Saagen see meer.
If you please.	Gütigst—gefälligst.	Geet*ig*st—gayfell*ig*st.
Have the goodness.	Haben Sie die Güte.	Haaben see dee geetay.
Yes, sir.	Ja, mein Herr.	Yah, mine hair.
Yes, madam.	Ja, Madam.	Yah, madam.
No, sir.	Nein, mein Herr.	Nine, mine hair.
No, madam.	Nein, Madam.	Nine, madam.
No, miss.	Nein, mein Fräulein.	Nine, mine froyline.
Do you speak German or French?	Sprechen Sie Deutsch oder Französisch?	Shpre*ch*en see doytsh oder frantsœsish?
I do not speak German.	Ich spreche nicht Deutsch.	*Ich* shpre*ch*e ni*ch*t doytsh.
I understand it, but do not speak it.	Ich verstehe es, aber ich spreche es nicht.	*Ich* fershtayay es, aaber *ich* shpre*ch*e es ni*ch*t.
I speak English.	Ich spreche Englisch.	*Ich* shpre*ch*e english.
I speak French a little.	Ich spreche ein wenig Französisch.	*Ich* shpre*ch*e ine vayn*ig* frantsœsish.

ENGLISH.	GERMAN.	PRONUNCIATION.
Do you understand?	Verstehen Sie?	Fershtayen see?
Can you understand?	Können Sie verstehen?	Kœnnen see ferstayen!
Speak slower.	Sprechen Sie langsamer.	Shpre*ch*en see langsamer.
You speak too fast.	Sie sprechen zu schnell.	See shpre*ch*en tsoo shnell.
Give me some bread.	Geben Sie mir Brod.	Gayben see meer brote.
Give me something to eat.	Geben Sie mir Etwas zu essen.	Gayben see meer etvas tsoo essen.
Something to drink.	Etwas zu trinken.	Etvas tsoo trinken.
Bring me some coffee.	Bringen Sie mir Kaffee.	Bringen see meer kaaffay.
I thank you.	Ich danke Ihnen.	I*ch* daankay eenen.
Good morning.	Guten Morgen.	Gooten morgen.
Good day.	Guten Tag.	Gooten taa*g*.
How do you do?	Wie geht's?	Vee gates?
How are you?	Wie befinden Sie sich?	Vee bayfinden see *sich*?
Very well.	Sehr wohl.	Sair vole.
I am very well.	Ich befinde mich sehr wohl.	I*ch* bayfinday mi*ch* sair vole.
Pretty well.	Ziemlich wohl.	Tseemli*ch* vole.
Tolerably.	So ziemlich.	So tseemli*ch*.
How is your father?	Wie befindet sich Ihr Herr Vater?	Vee bayfindet *sich* eer hair faater?
How is your mother?	Wie befindet sich Ihre Frau Mutter?	Vee bayfindet *sich* eeray frow mootter?
I am not well.	Ich bin nicht wohl.	I*ch* bin ni*ch*t vole.
I am unwell.	Ich bin unwohl.	I*ch* bin oonvole.
She is ill.	Sie ist krank.	See ist krank.
He is very ill.	Er ist sehr krank.	Air ist sair krank.
She has a cold.	Sie hat sich erkältet.	See hat *sich* airkeltet.
I have a toothache.	Ich habe Zahnweh.	I*ch* haabay tsahnvay.
I must go.	Ich muß gehen.	I*ch* mooss gayen.
It is time to go.	Es ist Zeit zu gehen.	Es ist tsite tsoo gayen.
Farewell.	Leben Sie wohl.	Layben see vole.
Good-by.	Adieu.	Adyœ.
I wish you a good morning.	Ich wünsche Ihnen einen guten Morgen.	I*ch* vinshay eenen inen gooten morgen.
Good evening.	Guten Abend.	Gooten ahbend.
Good night.	Gute Nacht.	Gootay na*ch*t.
I wish you good night.	Ich wünsche Ihnen gute Nacht.	I*ch* vinshay eenen gootay na*ch*t.
My compliments at home.	Meine Empfehlungen den Ihrigen.	Minay empfayloongen den eer*ig*en.

A MORNING CALL.

There is a knock.	Es klopft.	Es klupft.
It is Mr. A.	Es ist Herr A.	Es ist hair ah.
It is Mrs. B.	Es ist Frau B.	Es ist frow bay.
I am glad to see you.	Ich freue mich Sie zu sehen.	I*ch* froyay mi*ch* see tsoo sayen.
Pray be seated.	Bitte setzen Sie sich.	Bittay setsen see *sich*.
What news is there?	Was gibt's Neues?	Vas geepts noyes?
Good news.	Gute Nachrichten.	Gootay na*ch*ri*ch*ten.
Do you believe it?	Glauben Sie es?	Glowben see es?
I don't believe a word of it.	Ich glaube kein Wort davon.	I*ch* glowbay kine vort daafun.
I think so.	Ich denke (glaube) so.	I*ch* denkay (glowbay) [so.
I think not.	Ich denke nicht.	I*ch* denkay ni*ch*t.
Who told you?	Wer hat es Ihnen gesagt?	Vair hat es eenen gesaa*g*t?
It is true.	Es ist wahr.	Es ist var.
I doubt it.	Ich bezweifle es.	I*ch* baytsvifay es.
Have you heard from home?	Haben Sie von Hause gehört?	Haaben see fun howsay gayhœrt?
The postman brought me a letter to-day.	Der Briefträger brachte mir heute einen Brief.	Dair b r e e f t r a y g e r bra*ch*tay meer hoytay inen breef.
Sad news.	Schlechte Nachrichten.	Shle*ch*tay na*ch*ri*ch*ten.

ENGLISH.	GERMAN.	PRONUNCIATION.
Will you dine with us?	Wollen Sie mit uns speisen?	Vullen see mit oons shpisen?
No, thank you.	Nein, ich danke Ihnen.	Nine, *ich* daanke eenen.
I cannot stay.	Ich kann nicht bleiben.	*Ich* kann nic*h*t blyben.
You are in a great hurry.	Sie sind in großer Eile.	See sind in grosser ilay.
I have a great deal to do.	Ich habe viel zu thun.	*Ich* haabay feel tsoo toon.

PLEASURE AND REGRET.

What!	Was!	Vas!
Is it possible!	Ist es möglich!	Ist es mœgli*ch!*
Can it be!	Kann es sein!	Kan es sine!
How can it be possible!	Wie kann es möglich sein!	Vee kan es mœgli*ch* sine!
Who would have believed it!	Wer würde das geglaubt haben!	Vair veerday das geglowpt haaben!
Indeed!	Wirklich!	Veerkli*ch!*
It is impossible!	Es ist unmöglich!	Es ist oonmœgli*ch!*
That cannot be!	Es kann nicht sein!	Es kan nic*h*t sine!
I am astonished at it!	Ich wundere mich darüber!	*Ich* voonderay mi*ch* daareeber.
You surprise me!	Sie überraschen mich!	See eeberrashen mi*ch*.
It it incredible!	Es ist unglaublich!	Es ist oonglowbli*ch!*
I am very sorry.	Es thut mir sehr leid.	Es toot meer sair lite.
What a pity!	Wie schade!	Vee shahday!
It is a great pity.	Es ist sehr schade.	Es ist sair shahday.
It is a sad thing.	Es ist eine traurige Sache.	Es ist inay trowrigay sa*ch*ay.
It is a great misfortune.	Es ist ein großes Unglück!	Es ist ine grosses oonglick.
I am glad of it.	Ich freue mich darüber.	*Ich* froyay mi*ch* dareeber.
I am glad.	Es ist mir lieb.	Es ist meer leeb.
It gives me pleasure.	Es macht mir Vergnügen.	Es mac*h*t meer fergneegen.
It gives me great joy.	Es macht mir große Freude.	Es mac*h*t meer grossay froyday.
I am happy.	Ich bin glücklich.	*Ich* bin gleeckli*ch*.
How happy I am!	Wie glücklich ich bin!	Vee gleeckli*ch* *ich* bin!
I wish you joy.	Ich wünsche Ihnen Glück.	*Ich* vinshay eenen glick.
I congratulate you.	Ich gratulire Ihnen.	*Ich* gratooleeray eenen.

ANGER AND BLAME.

I am angry.	Ich bin ärgerlich.	*Ich* bin airgerli*ch*.
He is angry.	Er ist ärgerlich.	Air ist airgerli*ch*.
Don't be angry.	Seien Sie nicht ärgerlich.	Syen see nic*h*t airgerli*ch*.
You are wrong.	Sie haben Unrecht.	See haaben oonrec*h*t.
You are right.	Sie haben Recht.	See haaben rec*h*t.
Why don't you do it?	Warum thun Sie es nicht?	Varoom toon see es nic*h*t?
Be quiet!	Seien Sie ruhig!	Syen see rooi*g!*
What a shame!	Welche Schande!	Velc*h*ay shanday!
How could you do it?	Wie konnten Sie es thun?	Vee kunten see es toon?
I am ashamed of you!	Ich schäme mich Ihrer!	*Ich* shamay mi*ch* eerer!
You are very much to blame.	Sie sind sehr zu tadeln.	See sind sair tsoo taadeln.
Be patient!	Gedulden Sie Sich!	Gaydoolden see si*ch!*
I will improve.	Ich werde mich bessern.	*Ich* vairday mi*ch* bessern.

AGE.

How old are you?	Wie alt sind Sie?	Vee alt sind see?
I am twenty years old.	Ich bin zwanzig Jahre alt.	*Ich* bin tsvaantsi*g* yahray alt.
I shall soon be thirty.	Ich werde bald dreißig sein.	*Ich* vairday bald drysi*g* sine.
He looks older.	Er sieht älter aus.	Air seet elter owse.
She is younger.	Sie ist jünger.	See ist yinger.
She cannot be so young.	Sie kann nicht so jung sein.	See kann nic*h*t so yoong sine.
He must be older.	Er muß älter sein.	Air moos elter sine.
I did not think you were so old.	Ich glaubte nicht daß Sie so alt seien.	*Ich* glowptay nic*h*t das see so alt syen.
He is at least sixty.	Er ist wenigstens sechszig.	Air ist vani*g*stens se*ch*tsig.
How old is your father?	Wie alt ist Ihr Vater?	Vee alt ist eer fahter?
He is nearly eighty.	Er ist beinahe achtzig.	Air ist bynahay a*ch*tsi*g*.
Is he so old?	Ist er so alt?	Ist air so alt?
A great age.	Ein hohes Alter.	Ine hohes alter.
He begins to grow old.	Er fängt an alt zu werden.	Air fengt an alt tsoo vairden.
How old is your sister?	Wie alt ist Ihre Schwester?	Vee alt ist eeray shvester?
She is fifteen.	Sie ist fünfzehn.	See ist finftsain.

A MORNING CHAT.

An early morning.	Ein früher Morgen.	Ine freer morgen.
It is a fine morning.	Es ist ein schöner Morgen.	Es ist ine shœner morgen.
What o'clock is it?	Was ist die Uhr?	Vas ist dee oor?
It is nearly eight.	Es ist beinahe acht Uhr.	Es ist bynahay a*ch*t oor.
Light the fire.	Zünden Sie das Feuer an.	Tsinden see das foyer an.
I am going to get up.	Ich will aufstehen.	*Ich* vill owfshtayen.
Get me some hot water.	Bringen Sie mir etwas heißes Wasser.	Bringen see meer etvas hises vasser.
Some dinking-water.	Etwas Trinkwasser.	Etvas trinkvasser.
Make haste.	Machen Sie schnell.	Ma*ch*en see shnell.
There is no towel.	Es ist kein Handtuch da.	Es ist kine haandtoo*ch* dah.
Bring me some soap.	Bringen Sie mir Seife.	Bringen see meer sifay.
I want to wash myself.	Ich wünsche mich zu waschen.	*Ich* vinshay mi*ch* tsoo vashen.
How have you slept?	Wie haben Sie geschlafen?	Vee haaben see geshlaafen?
Did you sleep well?	Haben Sie gut geschlafen?	Haaben see goot geshlaafen?
Very well, thank you.	Sehr gut, ich danke Ihren.	Sair goot, *ich* dankay eenen.
Not very well.	Nicht sehr gut.	Nic*h*t sair goot.
I could not sleep.	Ich konnte nicht schlafen.	*Ich* kuntay nic*h*t shlaafen.
I was so tired from travelling.	Ich war so müde von der Reise.	*Ich* var so meeday fun dair risay.

AT THE BREAKFAST TABLE.

Breakfast is ready.	Das Frühstück ist fertig.	Das freeshtick ist fairti*g*.
Come to breakfast.	Kommen Sie zum Frühstück.	Kummen see tsoom freeshtick.
Let us breakfast.	Lassen Sie uns frühstücken.	Lassen see oons freeshticken.
Does the water boil?	Kocht das Wasser?	Kuc*h*t das vasser?
Is the tea made?	Ist der Thee fertig?	Ist dair tay fairti*g*?
Give me a cup of tea.	Geben Sie mir eine Tasse Thee.	Gayben see meer inay tassay tay.
A cup of coffee.	Eine Tasse Kaffee.	Inay tassay kaffay.
A roll.	Ein Milchbrod.	Ine mil*ch*brote.
Do you drink tea or coffee?	Trinken Sie Thee oder Kaffee?	Trinken see tay oder kaffay?

ENGLISH.	GERMAN.	PRONUNCIATION.
Will you take an egg?	Wollen Sie ein Ei essen?	Vullen see ine eye essen?
These eggs are hard.	Diese Eier sind hart.	Deesay eyer sint hart.
Give me the salt.	Geben Sie mir das Salz.	Gayben see meer das salts.
Pass me the butter.	Reichen Sie mir die Butter.	Ry*ch*en see meer dee bootter.
Bring some more butter.	Bringen Sie mir etwas mehr Butter.	Bringen see meer etvas mair bootter.
Give me a spoon.	Geben Sie mir einen Löffel.	Gayben see meer inen lœffel.
Is the coffee strong enough?	Ist der Kaffee stark genug?	Ist dair kaffay shtaark gaynoo*g*?
We want more cups.	Wir brauchen mehr Tassen.	Veer brow*ch*en mair tassen.
Take some more sugar.	Nehmen Sie noch etwas Zucker.	Naymen see nu*ch* etvas tsoocker.
Cold meat.	Kaltes Fleisch.	Kaaltes flyshe.
The table-cloth.	Das Tischtuch.	Das tishtoo*ch*.
The sugar-basin.	Die Zuckerbüchse.	Dee tsookerbiksay.
Chocolate.	Chokolade.	Chocolahday.
A knife.	Ein Messer.	Ine messer.
A fork.	Eine Gabel.	Inay gahbel.
The knife is blunt.	Das Messer ist stumpf.	Das messer ist shtoompf.
We have done breakfast.	Wir sind mit dem Frühstück fertig.	Veer sind mit dame freeshtick fairti*g*.
You can take away the things.	Sie können die Sachen fortnehmen.	See kœnnen dee sa*ch*en fortnaymen.

DINNER.

Have you ordered dinner?	Haben Sie das Essen bestellt?	Haaben see das essen baystellt?
I will order dinner.	Ich werde das Diner bestellen.	I*ch* vairday das deenay bayshtellen.
Show me the bill of fare.	Zeigen Sie mir die Speisekarte.	Tsigen see meer dee shpisaykartay.
Waiter.	Kellner.	Kelner.
What soup will you have?	Was für Suppe wünschen Sie?	Vas feer sooppay vinshen see?
Rice-soup.	Reissuppe.	Ricesooppay.
Have you any roast beef?	Haben Sie Rinderbraten?	Haaben see rinderbraaten?
We have very fine fish.	Wir haben sehr guten Fisch.	Veer haaben sair gooten fish.
Trout.	Forellen.	Forellen.
Fried pike.	Gebratene Hechte.	Gebraatenay he*ch*tay.
Roast mutton.	Hammelbraten.	Hammelbraaten.
What wine will you have?	Was für Wein wünschen Sie?	Vas feer vine vinshen see?
Let us see.	Lassen Sie sehen.	Lassen see sayen.
Here is the wine list.	Hier ist die Weinkarte.	Heer ist dee vinekartay.
What time will you dine?	Um welche Zeit wünschen Sie zu speisen?	Oom vel*ch*ay tsite vinshen see tsoo shpisen?
We shall dine at six o'clock.	Wir werden um sechs Uhr speisen.	Veer vairden oom sex oor shpisen.
Be punctual.	Seien Sie pünktlich.	Syen see pinktli*ch*.
Help yourself.	Bedienen Sie sich.	Baydeenen see si*ch*.
It is excellent.	Es ist vortrefflich.	Es ist foretreffli*ch*.
I like German cookery.	Die deutsche Küche gefällt mir.	Dee doytshay kee*ch*ay gefellt meer.
I do not like foreign cookery.	Die ausländische Küche schmeckt mir nicht.	Dee owslendishay kee*ch*ay shmeckt meer ni*ch*t.
Do you take pepper?	Nehmen Sie Pfeffer?	Naymen see pfeffer?
No, thank you.	Nein, ich danke.	Nine, i*ch* dankay.
Yes, if you please.	Ja, ich bitte.	Yah, i*ch* bittay.
Give me the mustard.	Geben Sie mir den Senf.	Gayben see meer dane senf.
Change the plates.	Wechseln Sie die Teller.	Veckseln see dee teller.
I want a spoon.	Ich wünsche einen Löffel.	I*ch* vinshay inen lœffel.
Are you hungry?	Sind Sie hungrig?	Sind see hoongri*g*?
Not very.	Nicht sehr.	Ni*ch*t sair.
I am hungry.	Ich bin hungrig.	I*ch* bin hoongri*g*?
You do not eat.	Sie essen nicht.	See essen ni*ch*t.
I am very thirsty.	Ich bin sehr durstig.	I*ch* bin sair doorsti*g*.
I am dying of thirst.	Ich sterbe vor Durst.	I*ch* stairbay for doorst.
Take a glass of wine.	Nehmen Sie ein Glas Wein.	Naymen see ine glaas vine.
Give me something to drink.	Geben Sie mir etwas zu trinken.	Gayben see meer etvas tsoo trinken.
I want some beer.	Ich wünsche Bier.	I*ch* vinshay beer.

TALK AT THE TEA TABLE.

Tea is quite ready.	Der Thee ist ganz fertig.	Dair tay ist gants fairti*g*.
They are waiting for you.	Man wartet auf Sie.	Man vaartet owf see.
I am coming.	Ich komme.	I*ch* kummay.
Bring a saucer.	Bringen Sie eine Untertasse.	Bringen see inay oontertassay.
Pour out the tea.	Schenken Sie den Thee ein.	Shenken see dane tay ine.
The tea is very strong.	Der Thee ist sehr stark.	Dair tay ist sair shtark.
It is very weak.	Er ist sehr schwach.	Air ist sair shva*ch*.
A slice of bread and butter.	Ein Stückchen Butterbrod.	Ine shtick*ch*en bootterbrote.
Hand the plate.	Geben Sie mir den Teller.	Gayben see meer dane teller.
Will you take some cake?	Wünschen Sie Kuchen?	Vinshen see koo*ch*en?
A small piece.	Ein Stückchen.	Ine shtick*ch*en.
Make more toast.	Rösten Sie mehr Brod.	Rœsten see mairbrote.
Make haste.	Machen Sie schnell.	Ma*ch*en see shnell.
This is good tea.	Dies ist guter Thee.	Dees ist gooter tay.
The tea-tray.	Der Präsentirteller.	Dair praysenteerteller.
A set of tea-things.	Das Theeservice.	Das taysairveece.
Have you finished?	Sind Sie fertig?	Sind see fairti*g*?
Take another cup.	Nehmen Sie noch eine Tasse.	Naymen see nu*ch* inay tassay.
Brown bread.	Schwarzes Brod.	Shvaartses brote.
White bread.	Weißes Brod.	Vices brote.
Stale bread.	Altes Brod.	Altes brote.
New bread.	Frisches Brod.	Frishes brote.

BED TIME.

It is late.	Es ist spät.	Es ist shpate.
What o'clock is it?	Was ist die Uhr?	Vas ist dee oor?
It is still early.	Es ist noch früh.	Es ist nu*ch* free.
Are you tired?	Sind Sie müde?	Sind see meeday?
Not at all.	Gar nicht.	Gar ni*ch*t.
Not much.	Nicht sehr.	Ni*ch*t sair.
It is only ten.	Es ist erst zehn.	Es ist airst tsane.
It is time to go to bed.	Es ist Zeit zu Bett zu geben.	Es is tsite tsoo bett tsoo gayen.
It is a fine evening.	Es ist ein schöner Abend.	Es ist ine shœner ahbend.
It is moonlight.	Es ist Mondschein.	Es is mohndshine.
Is my room ready?	Ist mein Zimmer fertig?	Ist mine tsimmer fairti*g*?
Sheets.	Die Laken.	Dee laaken.
A blanket.	Eine wollene Bettdecke.	Inay vullenay bettdeckay.
Good-night.	Gute Nacht.	Gootay na*ch*t.
Are you sleepy?	Sind Sie schläfrig?	Sind see shlayfri*g*?

THE HOUR OF THE DAY.

ENGLISH.	GERMAN.	PRONUNCIATION.
What o'clock is it?	Was ist die Uhr?	Vas ist dee oor?
My watch has stopped.	Meine Uhr steht.	Minay oor shtate.
It does not go.	Sie geht nicht.	See gayt nicht.
I forgot to wind it up.	Ich vergaß sie aufzuziehen.	Ich vairgaass see owftsootseen.
My watch is too fast.	Meine Uhr geht vor.	Minay oor gayt fore.
It is too slow.	Sie geht nach.	See gayt nach.
It is five minutes too slow.	Sie ist fünf Minuten zu spät.	See ist finf minooten tsoo shpate.
It goes right.	Sie geht richtig.	See gayt richtig.
One o'clock.	Ein Uhr.	Ine oor.
Five minutes past two.	Fünf Minuten nach zwei.	Finf minooten nach tsvi.
A quarter past three.	Ein Viertel auf vier.	Ine feertel owf feer.
Half-past four.	Halb fünf.	Haalb finf.
A quarter to five.	Drei viertel auf fünf.	Dry feertel owf finf.
Just six o'clock.	Gerade sechs Uhr.	Gayraaday sex oor.
Twenty minutes to seven.	Zwanzig Minuten vor sieben.	Tsvaantsig minooten fore seeben.
It has just struck eight.	Es hat eben acht geschlagen.	Es hat ayben acht geshlaagen.
Noon.	Mittag.	Mittaag.
Midnight.	Mitternacht.	Mitternacht.

THE PROMENADE.

Shall we take a walk?	Wollen wir einen Spaziergang machen?	Vullen veer inen shpaatseergang machen?
Yes, let us walk.	Ja, wir wollen ausgehen.	Yah, veer vullen owsgayen.
Where shall we go?	Wo wollen wir hingehen?	Vo vullen veer hingayen?
On the high road.	Auf die Chaussee.	Owf dee shossay.
There is a good deal of dust.	Es ist dort sehr staubig.	Es ist dort sair shtoubig.
Into the fields.	Auf die Felder.	Owf dee felder.
They are reaping.	Man erntet.	Man airntet.
They are making hay.	Es ist Heuernte.	Es ist hoyairntay.
What a pleasant scent!	Was für ein angenehmer Geruch!	Vas feer ine angenaymer gayrooch!
Let us take a walk into the town.	Machen wir eine Promenade in die Stadt.	Machen veer inay prummenahday in dee shtadt.
What street is that?	Was ist das für eine Straße?	Vas ist das feer inay shtraassay?
Where does it lead to?	Wo führt sie hin?	Vo feert see hin?
Handsome shops.	Schöne Läden.	Shœnay laden.
Bad pavement.	Schlechtes Pflaster.	Shlechtes pflaster.
Are these Prussian soldiers?	Sind dies preußische Soldaten?	Sind dees proyssishay soldaaten?
Where is King street?	Wo ist die Königsstraße?	Vo ist dee kœnigstraassay?
Straight before you.	Vor Ihnen.	Fore eenen.
To the left hand.	Linker Hand—links.	Linker hand—links.
To the right hand.	Rechter Hand—rechts.	Rechter hand—rechts.
Is the village far from here?	Ist das Dorf weit von hier?	Ist das dorf vite fun here?
About a mile.	Ungefähr eine Meile.	Oongayfare inay milay.
A good hour.	Eine gute Stunde.	Inay gootay shtoonday.
Hardly a mile.	Kaum eine Meile.	Kowm inay milay.
Half a mile.	Eine halbe Meile.	Inay halbay milay.

PERSONAL INQUIRIES.

Do you know Mr. F.?	Kennen Sie Herrn F.?	Kennen see hairn F?
I do not know anybody of that name.	Ich kenne Niemand dieses Namens.	Ich kennay neemaand deeses nahmens.
Does he live here?	Wohnt er hier?	Vohnt air here?
He lives in this house.	Er wohnt in diesem Hause.	Air vohnt in deesem howsay.
Where?	Wo?	Vo?
On the first floor.	Im ersten Stock.	Im airsten shtuck.
I know him.	Ich kenne ihn.	Ich kennay een.
Intimately.	Genau.	Gaynow.
I am very intimate with him.	Ich bin mit ihm sehr intim.	Ich bin mit eem sair inteem.
He is my friend.	Er ist mein Freund.	Air ist mine froind.
I have known him a long time.	Ich habe ihn lange gekannt.	Ich haabay een laangay gekant.
Where does he live?	Wo wohnt er?	Vo vohnt air?
He lives in Broad street, No. 3.	Er wohnt in der breiten Straße, Numero drei.	Air vohnt in dair bryten shtraassay noomero dry.
When is he at home?	Wann ist er zu Hause?	Van ist air tsoo howsay?
In the morning.	Des Morgens.	Des morgens.
In the evening.	Des Abends.	Des ahbends.
He lives close by.	Er wohnt nahe bei.	Air vohnt nahay by.
Is it far?	Ist es weit?	Ist es vite?
Can you direct me to his house?	Können Sie mir sein Haus zeigen?	Kœnnen see meer sine house tsigen?
I will show you where he lives.	Ich werde Ihnen zeigen wo er wohnt.	Ich vairday eenen tsigen vo air vohnt.
That is the market.	Das ist der Markt.	Das ist dair markt.
This is the street.	Dies ist die Straße.	Dees ist dee shtraassay.
The square.	Der Platz.	Dair plats.
This is his house.	Dies ist sein Haus.	Dees ist sine house.
Here he lives.	Hier wohnt er.	Heer vohnt air.

THE TALK OF TRAVEL.

Are you going to Germany?	Gehen Sie nach Deutschland?	Gayen see nach doytshland?
I intend to go to the Rhine.	Ich gedenke an den Rhein zu gehen.	Ich gaydenkay an den Rhine tsoo gayen.
When do you think of going?	Wann gedenken Sie zu reisen?	Van gedenken see tsoo risen?
How long shall you stay?	Wie lange werden Sie sich aufhalten?	Vee langay vairden see sich owfhalten?
About a month.	Ungefähr einen Monat.	Oongayfair inen mohnat.
I set out to-morrow.	Ich reise morgen ab.	Ich risay morgen ap.
Have you made all your preparations?	Haben Sie alle Ihre Vorkehrungen getroffen?	Haaben see allay eeray forkayrungen getruffen?
Everything is ready.	Alles ist fertig.	Alles ist fairtig.
I shall go by railway to Dover.	Ich werde mit der Eisenbahn nach Dover fahren.	Ich vairday mit dair isenbahn nach Dover fahren.
The train starts in ten minutes.	Der Zug geht in zehn Minuten ab.	Dair tsoog gayt in tsane minooten ab.
I want a ticket for Cologne.	Ich wünsche ein Billet nach Köln.	Ich vinshay ine bilyet nach Kœln.
First-class.	Erste Klasse.	Airstay klassay.
The express train.	Der Schnellzug.	Dair shneltsoog.
The ordinary train.	Der gewöhnliche Zug.	Dair gevœhnlichay tsoog.
Where is your baggage?	Wo ist Ihr Gepäck?	Vo ist eer gepeck?
Here it is.	Hier ist es.	Heer ist es.
The train is just going to start.	Der Zug wird sogleich abgehen.	Dair tsoog veert soglicke abgayen.
It does not go very fast.	Es geht nicht sehr schnell.	Es gate nicht sair shnel.
Not so fast as in England.	Nicht so schnell als in England.	Nicht so shnel als in England.

ENGLISH.	GERMAN.	PRONUNCIATION.
Here is a station.	Hier ist eine Station.	Heer is inay shtatsione.
Do we stop here?	Halten wir hier an?	Halten veer heer an?
They stop at every station.	Man hält auf jeder Station an.	Man helt owf yaydair shtatsione an.
It is a long journey.	Es ist eine lange Reise.	Es ist inay langay risay.
Yes, from ten to twelve hours.	Ja, von zehn bis zwölf Stunden.	Yah, fun tsane bis tsvelf shtoonden.
Very pretty country.	Sehr schöne Gegend.	Sair shœnay gaygend.
Arrived at last.	Endlich angekommen.	Endlich angekummen.
The steamer.	Das Dampfboot.	Das dampfboat.
When do you start?	Wann gehen Sie ab?	Van gayen see ab?
With the tide.	Mit der Fluth.	Mit dair floot.
Let us go down into the cabin.	Lassen Sie uns hinab in die Kajüte gehen.	Lassen see oons hinab in dee kahyeetay gayen.
The tide is strong.	Die Fluth ist stark.	Dee floot ist shtark.
The sea is rough.	Die See ist stürmisch.	Dee say ist shteermish.
The wind is against us.	Der Wind ist gegen uns.	Dair vind ist gaygen oons.
So much the worse.	Um so schlimmer.	Oom so shlimmer.
We shall have a long passage.	Wir werden eine lange Ueberfahrt haben.	Veer vairden inay langay eeberfahrt haaben.
I feel sea-sick.	Ich fühle mich seekrank.	Ich feelay mich saykrank.
The sea is getting calmer.	Das Meer wird ruhiger.	Das mair veert rooiger.
I see land.	Ich sehe Land.	Ich sayay lant.
It is the harbor of Ostend.	Es ist der Hafen von Ostende.	Es ist dair haafen fun Ustenday.
We have arrived.	Wir sind angekommen.	Veer sind angekummen.

DISCUSSING THE GERMAN LANGUAGE.

Can you read German?	Können Sie Deutsch lesen?	Kœnnen see doytsh laysen?
A little.	Ein wenig.	Ine vanig.
I read it very well, but I cannot speak it.	Ich lese es ganz gut, aber ich kann es nicht sprechen.	Ich laysay es gants goot, aber ich kann es nicht shprechen.
Do you speak German?	Sprechen Sie Deutsch?	Shprechen see doytsh?
I do not understand it.	Ich verstehe es nicht.	Ich fershtayay es nicht.
People speak so fast.	Man spricht so schnell.	Man shpricht so shnel.
You have had but little practice.	Sie haben nur wenig Uebung gehabt.	See haaben noor vaynig eeboong gehaabt.
You have a good pronunciation.	Sie haben eine gute Aussprache.	See haaben inay gootay owsshpraachay.
Your sister speaks it perfectly.	Ihre Schwester spricht es geläufig.	Eeray shvester shpricht es geloyfig.
It is a difficult language.	Es ist eine schwere Sprache.	Es ist inay shvayray shpraachay.
You will learn it soon.	Sie werden es bald lernen.	See vairden es bald lairnen.
Where do they speak the best German?	Wo spricht man das beste Deutsch?	Vo shpricht man das bestay doytsh?
In the North of Germany.	In Norddeutschland.	In norddoytshland.
I find the pronunciation easy.	Ich finde die Aussprache leicht.	Ich finday dee owsshpraachay liecht.
It is very much like English.	Es ist dem Englischen sehr ähnlich.	Es ist daim englishen sair ainlich.
Yes, the German language is the mother of the English.	Ja, die deutsche Sprache ist die Mutter der Englischen.	Yah, dee doytshay shpraachay ist dee mootter dair englishen.
It is the most useful and interesting language for an American to learn.	Es ist die nützlichste und interessanteste Sprache die ein Amerikaner lernen kann.	Es ist dee nitslichstay oont interessantestay shpraachay dee ine Amayrikahner lairnen kann.

THE WEATHER AND THE SEASONS.

Spring has come.	Der Frühling ist da.	Dair freeling ist dah.
Spring begins well.	Der Frühling fängt gut an.	Dair freeling fengt goot an.
It is rather mild.	Es ist ziemlich gelinde.	Es ist tseemlich gelinday.
It is spring-weather.	Es ist Frühlingswetter.	Es ist freelingsvetter.
The trees are beginning to bud.	Die Bäume fangen an auszuschlagen.	Dee boymay fangen an owstsooshlaagen.
The season is very forward.	Die Jahreszeit ist sehr vorgerückt.	Dee yahrestsite ist sair forgayrickt.
It is so pleasant.	Es ist so angenehm.	Es ist so angenaym.
The sun is so warm.	Die Sonne ist so warm.	Dee sunnay ist so varm.
There are some flowers.	Es giebt einige Blumen.	Es geebt inigay bloomen.
Snowdrops.	Schneeglöckchen.	Shnaygl'œckchen.
Tulips.	Tulpen.	Toolpen.
Hyacinths.	Hyacinthen.	Heeahtsinten.
Gather some.	Pflücken Sie welche.	Flicken see velchay.
As many as you please.	So viel Ihnen beliebt.	So feel eenen beleebt.
The season is very backward.	Die Jahreszeit ist sehr zurück.	Dee yahrestsite ist sair tsoorick.
Summer is coming.	Der Sommer kommt.	Dair summer kumt.
It is becoming warm.	Es wird warm.	Es veert varm.
It is too warm.	Es ist zu warm.	Es ist tsoo varm.
It is almost hot.	Es ist fast heiß.	Es ist fast hice.
It is a splendid day.	Es ist ein wunderschöner Tag.	Es is ine voondershœner tag.
The heat is great.	Die Hitze ist groß.	Dee hitsay ist gross.
The heat is unbearable.	Die Hitze ist unerträglich.	Dee hitsay ist oonertraylich.
It is very close.	Es ist sehr drückend.	Es ist saire drickend.
I think we shall have a storm.	Ich glaube wir werden einen Sturm haben.	Ich glowbay veer vairden inen shtoorm haaben.
The clouds are gathering.	Die Wolken ziehen sich zusammen.	Dee vulken tsee-en sich tsoosammen.
I hear thunder.	Ich höre Donner.	Ich hœray dunner.
It thunders fearfully.	Es donnert schrecklich.	Es dunnert shrecklich.
It lightens.	Es blitzt.	Es blitst.
How it rains!	Wie es regnet!	Vee es raygnet.
The sky begins to clear.	Der Himmel klärt sich auf.	Dair himmel klairt sich owf.
The rain ceases.	Der Regen hört auf.	Dair raygen hœrt owf.
There is a rainbow.	Da ist ein Regenbogen.	Da ist ine raygenbogen.
The sun breaks out.	Die Sonne bricht durch.	Dee sunnay bricht doorch.
Summer is over.	Der Sommer ist vorüber.	Dair summer ist foreeber.
The heat is past.	Die Hitze ist vorbei.	Dee hitsay is forbye.
The leaves are beginning to fall.	Die Blätter fangen an abzufallen.	Dee bletter fangen an abtsoofallen.
The days are still fine.	Die Tage sind noch schön.	Dee tahgay sind nuch shœn.
The days are closing.	Die Tage nehmen ab.	Dee tahgay naymen ab.
Autumn is interesting on the Rhine.	Der Herbst ist interessant am Rhein.	Dair hairbst ist interessant am Rhine.
It is the time of the vintage.	Es ist die Zeit der Weinlese.	Es ist dee tsite dair vinelaysay.
How happy the people are.	Wie glücklich die Leute sind.	Vee glicklich dee loytay sind.
We must soon begin fires.	Wir müssen bald die Oefen heitzen.	Veer missen bald dee œfen hitesen.

ENGLISH.	GERMAN.	PRONUNCIATION.
We have had a fire already.	Wir haben ſchon ein Feuer gehabt.	Veer haaben shone ine foyer gehaabt.
It is soon dark.	Es iſt bald dunkel.	Es ist bald doonkel.
It is a fine night.	Es iſt eine ſchöne Nacht.	Es ist inay shœnay na*ch*t.
Is it moonlight?	Iſt es Mondſchein?	Ist es mohntshine?
It is full moon.	Es iſt Vollmond.	Es ist fulmohnt.
New moon.	Neumond.	Noymohnt.
Do you think it will rain?	Glauben Sie daß es regnen wird?	Glowben see das es ray*g*nen veert?
I am afraid so.	Ich befürchte es.	I*ch* befeer*ch*tay es.
It hails.	Es hagelt.	Es hahgelt.
It rains.	Es regnet.	Es ray*g*net.
It is very windy.	Es iſt ſehr windig.	Es ist sair vindi*g*.
It is winter.	Es iſt Winter.	Es ist vinter.
The days are so short.	Die Tage ſind ſo kurz.	Dee tahgay sind so koorts.
It is very cold.	Es iſt ſehr kalt.	Es ist sair kalt.
There is a cold wind.	Es geht ein kalter Wind.	Es gayt ine kalter vind.
It is bad weather.	Es iſt ſchlechtes Wetter.	Es ist shle*ch*tes vetter.
It is foggy.	Es iſt nebelig.	Es is naybeli*g*.
The sky is overcast.	Der Himmel iſt bedeckt.	Dair himmel ist bedeckt.
It will snow.	Es wird ſchneien.	Es vird shnyen.
It freezes very hard.	Es friert ſtark.	Es freert shtark.
Can you skate?	Können Sie Schlittſchuh laufen?	Kœnnen see shlitshoo lowfen?
The ice does not bear.	Das Eis trägt nicht.	Das ice tray*g*t ni*ch*t.
The ice is thick enough.	Das Eis iſt dick genug.	Das ice ist dick genoo*g*.
It is healthy weather.	Es iſt geſundes Wetter.	Es ist gesoondes vetter.
It thaws.	Es thaut.	Es towt.
It is slippery.	Es iſt ſchlüpfrig.	Es ist shlipfri*g*.
The ice is thawing.	Das Eis geht auf.	Das ice gayt owf.
The streets are very wet and dirty.	Die Straßen ſind ſehr naß und ſchmutzig.	Dee shtraassen sind sair nass oont shmootsi*g*.
Christmas.	Weihnachten.	Vyna*ch*ten.
New Year.	Neujahr.	Noiyahr.
New Year's day.	Neujahrstag.	Noiyahrsta*g*.
A new year.	Ein neues Jahr.	Ine noyes yahr.

RELATING TO CORRESPONDENCE.

Ink.	Tinte.	Tintay.
Pens.	Federn.	Faydern.
Have you any envelopes?	Haben Sie Couverts?	Haaben see coovairts?
Postage stamps.	Poſtmarken.	Postmarken.
I want a sheet of writing-paper.	Ich brauche einen Bogen Schreibpapier.	I*ch* brow*ch*ay inen bogen shribepapeer.
Blotting-paper.	Löſchpapier.	Lœshpahpeer.
I have a letter to write.	Ich habe einen Brief zu ſchreiben.	I*ch* haabay inen breef tsoo shryben.
A pen-knife.	Ein Federmeſſer.	Ine faydermesser.
Now I will write.	Jetzt will ich ſchreiben.	Yetst vill i*ch* shryben.
What is the day of the month?	Den wievielſten haben wir heute?	Den veefeelsten haaben veer hoytay?
It is the sixteenth.	Es iſt der ſechszehnte.	Es ist dair sextsanetay.
Where is the post-office?	Wo iſt die Poſt?	Vo ist dee pust?
Close by.	Nahe bei.	Nahay by.
Take care of the letter.	Nehmen Sie den Brief in Acht.	Naymen see den breef in a*ch*t.

FRENCH WITHOUT A MASTER.

A Simple System of Self-Instruction in the French Language.

A MATTER of vital importance to all is the study of the French language. Not to mention the richness of French literature and the vast pleasures which arise from an intelligent perusal of the pages of the great authors who have built it up, the practical advantages to be derived from a knowledge of "the language of diplomacy" are too patent to require explanation. No one can be a perfect master of the English language who does not possess a certain amount of familiarity with the French tongue, through which so many of our strongest expressions have been filtered after leaving the more ancient parent stock. The traveller making the tour of the continent of Europe will find a knowledge of the French language indispensable. In all parts of that continent this language provides the common ground upon which men of all tongues meet in conversation, and the traveller, having simply made himself sufficiently familiar with the language to ask for what he wants, will have done much towards making his trip thoroughly enjoyable and instructive. The following system of self-instruction has been formulated with a view to providing a simple yet thorough means of studying French. The student who masters its details with care will, within the space of a very few days, find himself able to converse in that language, and begin to enjoy thoroughly the beauties of its literature.

ALPHABET AND PRONUNCIATION.

FRENCH ALPHABET.	NAME.	PRONUNCIATION.
A	ah	like *a* in the English word *arm*.
B	bay	as in English.
C	say	before *e* and *i*, is pronounced like *s*; before *a*, *o*, *u* and before a consonant *c* sounds like *k*; is soft before *a*, *o*, *u* in certain instances, when a mark beneath it called a cedilla is used, thus: ç.
D	day	as in English.
E	ai	*e*, *é*, *ai*, *ei*, are pronounced like *a* in the English word *care*.
F	eff	as in English.
G	jay	before *e* and *i* sounds like *j*.
H	aash	is generally silent.
I	ee	like *e* in the English word *we*.
J	jee	like *s* in the English word *measure*.
K	kah	as in English.
L	el	as in English.
M	em	as in English.
N	en	as in English.
O	o	*o*, in *stock*; *au*, *eau*, are pron. like *o* in *no*.
P	pay	like the English, but is often mute at the end of words.
Q	ku	like *k*.
R	air	like the English *r* in *run*.
S	ess	like the English *s*, sometimes like *z*.
T	tay	like *t* in the English word *tent*.
U	eeyu	like *u* in the English word *suite*.
V	vay	like the English *v*.
X	eeks	as in English.
Y	egrec	like *e* in the English word *we*.
Z	zed	like a soft *s*.

There are combinations of letters which are sometimes called compound vowels, viz.: *an*, *in*, *on*, *en*, *ou*, which are pronounced as follows:

The compound vowel *an* as *an* in the word *want*.
" " *in* as *an* " " *anchor*.
" " *on* as *on* " " *wrong*.
" " *un* has no correspondent in English.
" " *eu* as *i* in the word *bird*.
" " *ou* as *ou* " " *you*.

Ch is pronounced generally as *sh* in the word *share*.
Gn like *ni* in the word *minion*.
Gu is pronounced generally like *g* in *get*.
Ph as *ph* in *philosophy*.
Qu is generally pronounced like *k* in *king*.
Th like *th* in *Thames*.

ACCENTS AND OTHER MARKS.

The French make a frequent use of certain signs called ORTHOGRAPHIC SIGNS. They are the *accents*, the *apostrophe*, the *trait d'union* (hyphen), the *tréma* (diæresis), the *cédille* (cedilla), the *parenthèse* (parenthesis), and the different marks of *punctuation*.

There are three *accents*, the *accent aigu* (acute '), which is never used except over the vowel *e*; the *accent grave* (`), which is used over the vowels *a*, *e*, *u*, and the *accent circonflexe* (^), which is used with any of the vowels but *y*.

The *apostrophe* (') is used to point out the elision of a vowel at the end of a word before another word beginning with a vowel or an *h* mute, as in *l'âme*, the soul; *l'homme*, the man, instead of *la âme*, *le homme*.

A, *e*, *i*, are the only vowels liable to be thus cut off, and this last one in the single word *si* before *il; s'il* for *si il*.

The *trait d'union* (-) is used principally to connect compound words, as in *arc-en-ciel* (rainbow), or to join the pronoun to the verb, in the interrogative conjugation.

The *trema* (¨) is the same sign as the *diæresis* and used for the same purpose in French as in English.

The *cédille* is a little mark put under the *c* (ç) whenever it is required to give to that letter the articulation produced by the letter *s*, before the letters *a*, *o*, *u*; as, *Français*, *garçon*, *reçu*.

NUMBER AND GENDER.

There are two numbers in French as in English, the *singular* and the *plural*.

The French language has only two genders, the *masculine* and the *feminine*. The gender of *animate* objects is the same as in English; but practice, close attention to the harmony of the language, and very often derivation, can alone teach the gender of *inanimate* objects.

PARTS OF SPEECH.

These are ten in number: article, noun, adjective, pronoun, verb, adverb, participle, conjunction, preposition, interjection.

THE ARTICLE.

There are two articles, the definite and the indefinite. The definite article is rendered by "*le*" before a masculine noun, and by "*la*" before a feminine noun; as, *le père*, the father; *la mère*, the mother. The plural for both genders is "*les*;" as, *les pères*, the fathers; *les mères*, the mothers.

The articles are declined as follows:

Masculine.

Singular.		*Plural.*	
Nom. *le* (leh) *père*,	the father	*les* (lay) *pères*,	the fathers
Gen. *du* (du) *père*,	of the father	*des* (day) *pères*,	of the fathers
Dat. *au* (o) *père*,	to the father	*aux* (o) *pères*,	to the fathers
Acc. *le* (leh) *père*,	the father	*les* (lay) *pères*,	the fathers

Feminine.

Nom. *la mère*,	the mother	*les mères*,	the mothers
Gen. *de la mère*,	of the mother	*des mères*,	of the mothers
Dat. *à la mère*,	to the mother	*aux mères*,	to the mothers
Acc. *la mère*,	the mother	*les mères*,	the mothers

DECLENSION

Of a word beginning with a vowel or a silent "*h*."

Singular.		*Plural.*	
Nom. *l'homme*,	the man	*les⌒hommes*,	the men
Gen. *de l'homme*,	of the man	*des⌒hommes*,	of the men
Dat. *à l'homme*,	to the man	*aux⌒hommes*,	to the men
Acc. *l'homme*,	the man	*les⌒hommes*,	the men

INDEFINITE ARTICLE.

Masculine.		*Feminine.*	
Nom. *un jardin*,	a garden	*une ville*,	a town
Gen. *d'un jardin*,	of a garden	*d'une ville*,	of a town
Dat. *à un jardin*,	to a garden	*a une ville*,	to a town
Acc. *un jardin*,	a garden	*une ville*,	a town

DECLENSION OF PROPER NAMES.

Nom. *Paris*,	Paris	*Louise*,	Louisa
Gen. *de Paris*,	of Paris	*de Louise*,	of Louisa
Dat. *à Paris*,	to Paris	*à Louise*,	to Louisa
Acc. *Paris*,	Paris	*Louise*,	Louisa

EXERCISES IN THE USE OF THE ARTICLE.

Having mastered the declensions, the student will thoroughly familiarize himself with the use of the articles by memorizing the following vocabulary:

THE UNIVERSE.

ENGLISH.	FRENCH.	PRONUNCIATION.
God	*Dieu*	Deeyu
the world	*le monde*	leh maund
the sky	*le ciel*	leh seeyel
the sun	*le soleil*	leh sohleyl
the moon	*la lune*	lah lune
a star	*une étoile*	une aitoahl
the air	*l'air*	l'air
the earth	*la terre*	lah tayr
the water	*l'eau*	l'o
the fire	*le feu*	leh feuh
the sea	*la mer*	lah mare
an island	*une île*	une eel
a lake	*un lac*	ung lahc
a stream	*un fleuve*	ung fleuhv
a river	*une rivière*	une reeveeare
the animals	*les animaux*	laiz aneemo
the metals	*les métaux*	lai maito
the gold	*l'or*	l'orr
the silver	*l'argent*	l'arjang
the iron	*le fer*	leh fayr
the steel	*l'acier*	l'asseay
the copper	*le cuivre*	leh cweevr
the tin	*l'étain*	l'aitang

THE HUMAN BEING.

Man	*l'homme*	l'omm
the body	*le corps*	leh cor
the head	*la tête*	lah tait
the face	*le visage*	leh veesaje
the forehead	*le front*	leh frong
the eye	*l'œil*	l'ile
the eyes	*les⌒yeux*	laiz eeyeu
the nose	*le nez*	leh nay
the ears	*les oreilles*	laiz ohraill
the chin	*le menton*	leh mauntong
the beard	*la barbe*	lah barb
the mouth	*la bouche*	lah boosh
the lips	*les lèvres*	lai layvr
the tooth	*la dent*	lah dong
the tongue	*la langue*	lah laungh
the neck	*le cou*	leh coo

ENGLISH.	FRENCH.	PRONUNCIATION.
the shoulders	*les épaules*	laiz aipole
the arm	*le bras*	leh brah
the hand	*la main*	lah mang
the fingers	*les doigts*	lai douah
the nails	*les ongles*	laiz aungl
the chest	*la poitrine*	lah pouahtreen
the heart	*le cœur*	leh keuhr
the knee	*le genou*	leh jenoo
the leg	*la jambe*	lah jahmb
the foot	*le pied*	leh peeay
the bones	*les os*	laiz o

FOOD.

bread	*le pain*	leh pang
flour	*la farine*	lah fareen
meat	*de la viande*	de la veeaund
roast meat	*du rôti*	du rotee
beef	*du bœuf*	du beuhf
veal	*du veau*	du vo
mutton	*du mouton*	du mootong
lamb	*de l'agneau*	deh l'anyo
pork	*du porc*	du pork
bacon	*du lard*	du lar
ham	*du jambon*	du jahmbong
soup	*la soupe*	lah soup
rice	*du riz*	du ree
eggs	*des œufs*	daiz euh
salad	*de la salade*	deh lah salade
mustard	*de la moutarde*	deh lah mootard
salt	*du sel*	du sel
oil	*de l'huile*	deh l'weel
vinegar	*du vinaigre*	du veenaigr
pepper	*du poivre*	du pouahvr
butter	*du beurre*	du beuhr
cheese	*du fromage*	du fromahje
breakfast	*le déjeuner*	leh dayjeuhnai
dinner	*le dîner*	leh deenai
supper	*le souper*	leh soopai
hunger	*la faim*	lah fahng
thirst	*la soif*	lah souaf
water	*de l'eau*	deh l'o
wine	*du vin*	du vang
beer	*de la bière*	deh lah beeair
milk	*du lait*	du lay
tea	*du thé*	du tay
gin	*du genièvre*	du jenyavr
brandy	*de l'eau de vie*	deh lo deh vee

DRESS.

A coat	*un surtout*	ung syuretoo
a cloak	*un manteau*	ung maunto
a waistcoat	*un gilet*	ung jeelay
the trowsers	*la culotte*	lah kyulot
the braces	*les bretelles*	lai bretell
the cap	*le bonnet*	leh bonnay
the hat	*le chapeau*	leh shapo
the comb	*le peigne*	leh paine
gloves	*des gants*	dai gang
a ring	*une bague*	une baag
a watch	*une montre*	une mongtre
the stocking	*le bas*	leh bah
the boots	*les bottes*	lai bot
the bootjack	*le tire-botte*	leh teer-bot
the slippers	*les pantoufles*	lai pauntoofl
the shoes	*les souliers*	lai soolyai
a shirt	*une chemise*	une shemeeze
the necktie	*la cravate*	lah cravaht
a pocket-handkerchief	*un mouchoir*	ung mooshouah
the clothes-brush	*la brosse*	lah bross
the umbrella	*le parapluie*	leh paraplwee
the parasol	*le parasol*	leh parasol

THE HOME.

The house	*la maison*	lah maysong
the door	*la porte*	lah port
the key	*la clef*	lah clay
the bell	*la sonnette*	lah sonnet
the staircase	*l'escalier*	l'escallyai
the drawing-room	*la salle*	lah sal
the dining-room	*la salle-à-manger*	lah sal-ah-maunjai
the room	*la chambre*	lah shaumbr
the bed-room	*la chambre-à-coucher*	lah shaumbr-ah-cushai
the window	*la fenêtre*	lah fennaitr
the wall	*la paroi*	lah pahrouah
the kitchen	*la cuisine*	lah cweezeen
the roof	*le toit*	leh touah
the cellar	*la cave*	lah caav
the garden	*le jardin*	leh jardang
a table	*une table*	une tahbl
a chair	*une chaise*	une shayse
an arm-chair	*un fauteuil*	ung fotayle
a looking-glass	*un miroir*	ung meerouahr
a clock	*une horloge*	une orloje
a trunk	*un coffre*	ung cofr
a box	*une boîte*	une bouaht
the bed	*le lit*	leh lee
the counterpane	*la couverture*	lah coovairtyure
a pillow	*un oreiller*	un oraylyai
the sheets	*les draps de lit*	lai drah deh lee
the mattress	*le matelas*	leh matlah
the plate	*l'assiette*	l'assyet
a candlestick	*un chandelier*	ung shaundelyai
the lamp	*une lampe*	une laump
a spoon	*une cuiller*	une cweelyai
a fork	*une fourchette*	une foorshet
a knife	*un couteau*	ung cooto
a cup	*une tasse*	une tass
the saucer	*la soucoupe*	lah sooccoop
the tablecloth	*la nappe*	lah nap
the towel	*un essuie-main*	ung esswee-mang
a glass	*un verre*	ung vair
the tea-pot	*la théière*	lah taiyare

TRADES.

An occupation	*un métier*	ung maytyai
a workman	*un artisan*	ung arteesong
a baker	*un boulanger*	ung boolonjai
a miller	*un meunier*	ung meuhnyai
a butcher	*un boucher*	ung booshai
a brewer	*un brasseur*	ung brasseuhr
a tailor	*un tailleur*	ung talyeur
a shoemaker	*un cordonnier*	ung cordonyai
a smith	*un forgeron*	ung forjehrong
a saddler	*un sellier*	ung selyai
a carpenter	*un menuisier*	ung menweesyai
a mason	*un maçon*	ung massong
a bookbinder	*un relieur*	ung rellyeuhr

THE TOWN.

The town	*la ville*	lah veel
the bridge	*le pont*	leh pong
the tower	*la tour*	lah toor
the gate	*la porte*	lah port
the street	*la rue*	lah ru
the market	*le marché*	leh marshay
the building	*le bâtiment*	leh bahteemong
the town-house	*l'hôtel de ville*	l'otel deh veel
the theatre	*le théâtre*	leh tayahtr
the post-office	*la poste*	lah post

ENGLISH.	FRENCH.	PRONUNCIATION.
the church	*l'église*	l'aygleeze
the cathedral	*la cathédrale*	lah cataydral
the school	*l'école*	l'aycol
the prison	*la prison*	lah preesong
the exchange	*la bourse*	lah boorse
the palace	*le palais*	leh pallay
the hotel	*l'hôtel*	l'otel
the inn	*l'auberge*	l'obayrje
the public house	*le cabaret*	leh cabbaray
the coffee-room	*le café*	leh caffay

BEASTS, BIRDS, FISHES, ETC.

An animal	*un animal*	ung aneemal
a horse	*un cheval*	ung sheval
a donkey	*un âne*	ung ahn
the dog	*le chien*	leh sheeang
the cat	*le chat*	leh shah
the rat	*le rat*	leh rah
the mouse	*la souris*	lah sooree
an ox	*un bœuf*	ung beuh
a cow	*une vache*	une vash
a calf	*un veau*	ung vo
a sheep	*une brebis*	une brebbee
a lamb	*un agneau*	un anyo
a pig	*un cochon*	un coshong
the hare	*le lièvre*	leh leeayvr
a monkey	*un singe*	ung sangj
a wolf	*un loup*	ung loo
a bear	*un ours*	ung oor
a lion	*un lion*	ung leeong
an elephant	*un éléphant*	un aylayfong
a tiger	*un tigre*	ung teegr
a bird	*un oiseau*	un woiso
a cock	*un coq*	un cock
a hen	*une poule*	une pool
a chicken	*un poulet*	ung poolay
a swan	*un cigne*	ung seen
a goose	*une oie*	une ouah
a duck	*un canard*	ung canar
a lark	*une alouette*	une allooet
a nightingale	*un rossignol*	ung rosseenyol
the swallow	*l'hirondelle*	l'eenrongdel
the sparrow	*le moineau*	leh mouano
the raven	*le corbeau*	leh corbo
the crow	*la corneille*	lah cornayl
the parrot	*le perroquet*	leh perokay
the eagle	*l'aigle*	l'aygl
a fish	*un poisson*	ung pouassong
a pike	*un brochet*	ung broshay
a salmon	*un saumon*	ung somong
a carp	*une carpe*	une carp
an eel	*une anguille*	une ongghee
a trout	*une truite*	une trweet
a herring	*un hareng*	ung harrong
oysters	*des huîtres*	daiz weetr
a crab	*une écrevisse*	une aycreveece
a whale	*une baleine*	une ballayn
a serpent	*un serpent*	ung sairpong
a frog	*une grenouille*	une grenooeel
a worm	*un ver*	un vair
an insect	*un insecte*	un angsect
a spider	*une araignée*	une arraynyai
a moth	*une teigne*	ung taine
a fly	*une mouche*	une moosh
a gnat	*un moucheron*	ung moosherong
a bee	*une abeille*	une abbail
the honey	*le miel*	leh meeyel
a wasp	*une guêpe*	une gape
a butterfly	*une papillon*	ung pappillyong

TREES, FRUITS, FLOWERS AND VEGETABLES.

ENGLISH.	FRENCH.	PRONUNCIATION.
A tree	*un arbre*	ung arbr
a branch	*une branche*	une braungsh
a leaf	*une feuille*	une file
an apple	*une pomme*	une pomm
a pear	*une poire*	une pouar
a plum	*une prune*	une pryun
a cherry	*une cerise*	une seriseee
a nut	*une noix*	une nouah
a currant	*de la groseille*	de lah grozale
a gooseberry	*de la groseille verte*	deh lah grozale verte
a strawberry	*une fraise*	une fraize
a chestnut	*un marron*	ung marrong
the oak-tree	*le chêne*	leh shane
the fir-tree	*le pin*	leh pang
the birch	*le bouleau*	leh boolo
the willow	*le saule*	leh sole
a flower	*une fleur*	une fleuhr
a rose	*une rose*	une rose
a pink	*un œillet*	un ileyai
a tulip	*une tulipe*	une tyuleep
a lily	*un lis*	ung lee
a violet	*une violette*	une veeolet
a bouquet	*un bouquet*	ung bookay
beans	*des fèves*	dai faive
peas	*des pois*	dai pouah
cabbage	*des choux*	dai shoo
cauliflower	*des choux-fleurs*	dai shoo-fleuhr
carrots	*des betteraves*	dai betrahve
asparagus	*des asperges*	daiz aspairj
spinach	*des épinards*	daiz aipeenar
radishes	*des radis*	dai raddee
celery	*du céleri*	du selree
a melon	*un melon*	ung mellong
cucumber	*des concombres*	dai congcongbr

THE SCHOOL.

A school	*l'école*	l'aycol
the teacher	*le maître*	leh maytr
the book	*le livre*	leh leevr
the paper	*le papier*	leh papyai
a pen	*une plume*	une plyume
an inkstand	*un encrier*	un ongcreeai
the ink	*l'encre*	l'ongkr
the pencil	*le crayon*	leh crayong
a letter	*une lettre*	une lettr
an envelope	*une enveloppe*	une ongvellope

TIME AND SEASONS.

The time	*le temps*	leh tong
a minute	*une minute*	une meenyute
an hour	*une heure*	une eur
a quarter of an hour	*un quart-d'heure*	ung kar d'eur
half an hour	*une demie-heure*	une demi eur
the day	*le jour*	leh joor
the morning	*le matin*	leh mattang
noon	*le midi*	leh meedee
the afternoon	*l'après-midi*	l'apray meedee
the evening	*le soir*	leh souahr
the night	*la nuit*	lah nwee
a year	*un an*	un ong
a month	*un mois*	ung mouah
January	*Janvier*	Jongveeay
February	*Février*	fayvreeay
March	*Mars*	marse
April	*Avril*	avreel
May	*Mai*	may
June	*Juin*	jyuang
July	*Juillet*	jweelyai

August	*Août*	oo
September	*Septembre*	septaumbr
October	*Octobre*	octobr
November	*Novembre*	novaumbr
December	*Décembre*	daysaumbr
a week	*une semaine*	une semmane
a fortnight	*quinze jours*	kanze joor
Monday	*Lundi*	lungdee
Tuesday	*Mardi*	mardee
Wednesday	*Mercredi*	mayrcredee
Thursday	*Jeudi*	jeuhdee
Friday	*Vendredi*	vondredee
Saturday	*Samedi*	samdee
Sunday	*Dimanche*	deemaunshe
spring	*le printemps*	leh prangtong
summer	*l'été*	l'aytay
autumn	*l'automne*	l'otonn
winter	*l'hiver*	l'eevare

THE COUNTRY.

The country	*la campagne*	lah caumpahne
the village	*le village*	leh veelaj
the hut	*la cabane*	lah caban
the soil	*le sol*	leh sol
the meadow	*le pré*	lah pray
the barn	*la grange*	leh graunj
the mill	*le moulin*	leh moolang
the cattle	*le bétail*	leh baytale
the herd	*le troupeau*	leh troopo
the shepherd	*le berger*	leh bayrjay
the mountain	*la montagne*	lah montaine
the hill	*la colline*	lah colleen
the dale	*la vallée*	lah vallay
the wood	*le bois*	leh bouah
the forest	*la forêt*	lah forray
the road	*le chemin*	leh shemmang
the high-road	*le grand-chemin*	leh grong shemmang
the railroad	*le chemin de fer*	leh shemmang deh fare
a mile	*une mille*	une meel
the waterfall	*la cascade*	lah cascad
the fisherman	*le pêcheur*	leh paysheur
the huntsman	*le chasseur*	leh shasseuhr

THE FAMILY.

The family	*la famille*	lah fameel
the husband	*le mari*	leh maree
the wife	*la femme*	lah fam
the father	*le père*	leh pare
the mother	*la mère*	lah mare
the child	*l'enfant*	l'ongfong
the son	*le fils*	leh feess
the daughter	*la fille*	lah feel
the brother	*le frère*	leh frare
the sister	*la sœur*	lah seuhr
the uncle	*l'oncle*	l'oncle
the aunt	*la tante*	lah taunte
the cousin	*le cousin*	leh coosang
the marriage	*le mariage*	leh mareeahje

NATIONALITIES.

An American	*un Américain*	un amayreecang
a German	*un Allemand*	un almaung
Germany	*l'Allemagne* f.	l'almaine
a Dutchman	*un Hollandais*	ung hollaunday
Holland	*la Hollande*	lah hollaund
a Belgian	*un Belge*	une belj
Belgium	*la Belgique*	lah beljeek
a Swiss	*un Suisse*	ung sweess
Switzerland	*la Suisse*	lah sweess
a Hungarian	*un Hongrois*	ung hongrwah
Hungary	*la Hongrie*	lah hongree
an Englishman	*un Anglais*	un aunglay
England	*l'Angleterre* f.	l'aungltare
an Irishman	*un Irlandais*	un eerlaunday
Ireland	*l'Irlande* f.	l'eerlaund
a Scotchman	*un Ecossais*	un aycossay
Scotland	*l'Ecosse* f.	l'aycoss
a Dane	*un Danois*	ung danouah
Denmark	*le Danemarc*	leh danmark
a Swede	*un Suédois*	ung swaydwah
Sweden	*la Suède*	lah swayde
a Russian	*un Russe*	ung russe
Russia	*la Russie*	lah russee
a Spaniard	*un Espagnol*	un espanyol
Spain	*l'Espagne* f.	l'espaine
a Frenchman	*un Français*	ung fraungsay
France	*la France*	lah fraungse
an Italian	*un Italien*	un eetalyang
Italy	*l'Italie* f.	l'eetalee

THE NOUN.

To form the plural of French nouns, add *s* to the singular; as *père*, father, *pères*, fathers.

Nouns ending in *s*, *x* or *z*, in the singular, do not vary in the plural; as, *fils*, son; *fils*, sons.

Nouns ending in *au* or *eu* add *x* to form the plural; as, *eau*, water; *eaux*, waters.

Nouns in *ou* form their plural regularly, by the addition of *s*.

But the following nouns in *ou* take *x* to the plural, viz.: *bijou*, *caillou*, *chou*, *genou*, *hibou*, *joujou*, *pou*.

Nouns ending in *al* change this termination into *aux* to form the plural; as, *cheval*, horse; *chevaux*, horses.

But *bal*, *carnaval*, *regal*, and a few others, form their plural regularly, by the addition of *s* to the singular.

Nouns in *ail* form their plural regularly, by adding *s* to the singular.

The following seven nouns in *ail* form their plural by changing *ail* into *aux*, viz.: *bail*, lease; *émail*, enamel; *corail*, coral; *soupirail*, air-hole; *travail*, work; *vantail*, leaf of the folding-door; *ventail*, the part of a helmet which admits air; *vitrail*, glass-window.

Ciel, heaven, has *cieux* in the plural. *Œil*, eye, has *yeux*. *Aïeul*, ancestor, has *aïeux*.

THE ADJECTIVE.

The French adjectives are placed either before or after the nouns; as:

le bon père, the good father	*la bonne mère*, the good mother
un bon garçon, a good boy	*une jeune fille*, a young girl
une table ronde, a round table	*du lait chaud*, warm milk.

COMPARISON OF ADJECTIVES.

Grand, great	*plus grand*, greater	*le plus grand*, the greatest
petit, small	*plus petit*, smaller	*le plus petit*, the smallest
bon, good	*meilleur*, better	*le meilleur*, the best
mauvais, bad	*pire*, worse	*le pire*, the worst
petit, little	*moindre*, less	*le moindre*, the least

"Than" following the comparative is always translated by "*que:*"

Il est plus poli que son frère—he is more polite than his brother.

NUMERAL ADJECTIVES.

1	*un*	ung	11	*onze*	ongz
2	*deux*	deuh	12	*douze*	dooze
3	*trois*	trouah	13	*treize*	trayz
4	*quatre*	kahtr	14	*quatorze*	katorz
5	*cinq*	sahnk	15	*quinze*	kangz
6	*six*	seece	16	*seize*	sayz
7	*sept*	set	17	*dix-sept*	dez-set
8	*huit*	wheet	18	*dix-huit*	deez-wheet
9	*neuf*	neuf	19	*dix-neuf*	deez-neuf
10	*dix*	deece	20	*vingt*	vahng

21	*vingt-un*	vahnt-ung
22	*vingt-deux*	
23	*vingt-trois*	
24	*vingt-quatre*	
25	*vingt-cinq*	
26	*vingt-six*	
27	*vingt-sept*	
28	*vingt-huit*	
29	*vingt-neuf*	
30	*trente*	traunt
40	*quarante*	karaunt
50	*cinquante*	sahnkaunt
60	*soixante*	soassaunt
70	*soixante-dix*	
71	*soixante-onze*	
72	*soixante-douze*	
73	*soixante-treize*	
74	*soixante-quatorze*	
75	*soixante-quinze*	
76	*soixante-seize*	
77	*soixante-dix-sept*	
78	*soixante-dix-huit*	
79	*soixante-dix-neuf*	
80	*quatre-vingt*	katr-vahng
81	*quatre-vingt-un*	katr-vahnt-ung
82	*quatre-vingt-deux*	
83	*quatre-vingt-trois*	
84	*quatre-vingt-quatre*	
85	*quatre-vingt-cinq*	
86	*quatre-vingt-six*	
87	*quatre-vingt-sept*	
88	*quatre-vingt-huit*	
89	*quatre-vingt-neuf*	
90	*quatre-vingt-dix*	
91	*quatre-vingt-onze*	
92	*quatre-vingt-douze*	
93	*quatre-vingt-treize*	
94	*quatre-vingt-quatorze*	
95	*quatre-vingt-quinze*	
96	*quatre-vingt-seize*	
97	*quatre-vingt-dix-sept*	
98	*quatre-vingt-dix-huit*	
99	*quatre-vingt-dix-neuf*	
100	*cent*	saung
101	*cent-un*	saunt-ung
110	*cent dix*	saung-deece
120	*cent vingt*	saung-vahng
130	*cent trente*	
200	*deux cents*	
300	*trois cents*	
400	*quatre cents*	
500	*cinq cents*	
600	*six cents*	
700	*sept cents*	
800	*huit cents*	
900	*neuf cents*	
1,000	*mille*	meel
2,000	*deux mille*	
3,000	*trois mille*	
10,000	*dix mille*	
20,000	*vingt mille*	
a million,	*un million*,	ung mellyong

ORDINAL NUMBERS.

The first,	*le premier*	leh premyai
" second	*le second*	leh zeggong
" third	*le troisième*	leh trouazzeeame
" fourth	*le quatrième*	leh kattreeame
" 5th	*le cinquième*	leh sahnkeeame
" 6th	*le sixième*	leh seeceeame
" 7th	*le septième*	leh seetteeame
" 8th	*le huitième*	leh wheeteeame
" 9th	*le neuvième*	leh neuveeame
" 10th	*le dixième*	leh deezeeame
" 11th	*l'onzième*	leh ongzeeame
" 12th	*le douzième*	leh doozeeame
" 13th	*le treizième*	leh trayzeeame
" 14th	*le quatorzième*	leh kattorzeeame
" 15th	*le quinzième*	leh kahngzeeame
" 16th	*le veizième*	leh sayzeeame
" 17th	*le dix-septième*	leh deessettiame
" 18th	*le dix-huitième*	leh deez-wheeteeame
" 19th	*le dix-neuvième*	leh deez-neuveeame
" 20th	*le vingtième*	leh vahnteeame
" 21st	*le vingt-unième*	leh vahnt-uneeame
" 30th	*le trentième*	leh traunteeame
" 40th	*le quarantième*	leh karaunteeame
" 50th	*le cinquantième*	leh sahnkaunteeame
" 60th	*le soixantième*	leh souahssaunteeame
" 70th	*le soixante-dixième*	leh souahssaunt-deezeeame
" 80th	*le quatre-vingtième*	leh kattr-vahnteeame
" 90th	*le quatre-vingt-dixième*	leh kattr-vahnt-deezeeame
" 100th	*le centième*	leh saunteeame
" 1,000th	*le millième*	leh milleeame
the last	*le dernier*	leh dareneeay

VOCABULARY OF ADJECTIVES.

Poor	*pauvre*	pohvr
rich	*riche*	reesh
clever	*prudent*	prudong
stupid	*stupide*	stupeed
sharp	*aigu*	aygu
blunt	*obtus*	obtu
clean	*propre*	propr
dirty	*sale*	saal
hard	*dur*	dure
soft	*mou*	moo
strong	*fort*	fore
weak	*faible*	fabl
well	*sain*	sang
ill	*malade*	malahd
lean	*maigre*	maygr
thick	*gros*	gro
fat	*gras*	gra
thin	*mince*	mangce
polite	*poli*	polee
impolite	*malhonnête*	mallonnate
false	*faux*	fo
deep	*profond*	profong
wide	*large*	larj
narrow	*étroit*	aytrouah
round	*rond*	rong
square	*carré*	carray
short	*court*	coor
long	*long*	long
flat	*plat*	pla
warm	*chaud*	sho
cold	*froid*	frouah
fresh	*frais*	fray
ripe	*mûr*	muru
dry	*sec*	sec
sour	*aigre*	aygr
sweet	*doux*	doo
bitter	*amer*	amare
hungry	*affamé*	affammay
thirsty	*altéré*	altayray
heavy	*pesant*	pezong
light	*léger*	layjai
wet	*humide*	umeed
content	*content*	congtong
happy	*heureux*	eureu
gay	*gai*	gay
sad	*triste*	treest
useful	*utile*	uteel
strange	*étrange*	aytraunj
pretty	*joli*	jolee
ugly	*laid*	lay
dark	*sombre*	sombr
open	*ouvert*	oovare
disagreeable	*désagréable*	daysagrayabl
proud	*fier*	feeare
arrogant	*arrogant*	arrogong
cowardly	*lâche*	lahsh
courageous	*courageux*	coorrajeu
faithless	*perfide*	pairfeed
innocent	*innocent*	innosong

THE PRONOUN.

The personal pronouns are as follows:

Je	(jeh)	I	*Nous*	(noo)	we
tu	(tu)	thou	*vous*	(voo)	you
te	(teh)	thee	*vous*	(voo)	you
il	(eel)	he	*ils*	(eel)	they
elle	(el)	she	*elles*	(el)	they
moi	(mouah)	me	*nous*	(noo)	us
toi	(touah)	thee	*lui*	(lwee)	him

POSSESSIVE PRONOUNS.

Mas.	*mon*	(mong)	my	*Plural:*	*mes*	(may)	my
Fem.	*ma*	(mah)	my				
Mas.	*ton*	(tong)	thy	"	*tes*	(tay)	thy
Fem.	*ta*	(tah)	thy				
Mas.	*son*	(song)	his	"	*ses*	(say)	his, her.
Fem.	*sa*	(sah)	her				
	notre	(notr)	our	"	*nos*	(no)	our
	votre	(votr)	your	"	*vos*	(vo)	your
	leur	(leur)	their	"	*leurs*	(leur)	their

RELATIVE PRONOUNS.

Qui	(kee)	who, which, that	
quoi	(couah)	what, that	
quel	(kel), *le quel?*	which?	*que* (keh) what?

THE VERB.

Before proceeding to study the conjugations of the regular verbs, the student must ground himself thoroughly in the irregular verbs *avoir*, to have, and *être*, to be, which are designated auxiliary verbs because they assist in the conjugation of the others.

THE AUXILIARY VERB "AVOIR"—TO HAVE.

INFINITIVE MOOD.

Present. *Avoir*, to have,

Past. *Avoir eu*, to have had.

PARTICIPLES.

Ayant, having.

Eu, had

Ayant eu, having had.

INDICATIVE MOOD.

Present.

I have	*jai*	jay
thou hast	*tu as*	tu ah
he has	*il a*	eel ah
she has	*elle a*	el ah
we have	*nous avons*	nooz avong
you have	*vous avez*	vooz aval
they have	*ils (elles) ont*	eels ong

Imperfect.

I had	*j'avais*	javay
thou hadst	*tu avais*	tu avay
he had	*il avait*	eel avay
we had	*nous avions*	vooz aveeong
you had	*vous aviez*	nooz aveeay
they had	*ils avaient*	eels avay

Past Definite.

I had	*j'eus*	jew
thou hadst	*tu eus*	tu ew
he had	*il eut*	eel ew
we had	*nous eûmes*	nooz eum
you had	*vous eûtes*	vooz eut
they had	*ils eurent*	eels eur

Perfect.

I have had	*j'ai eu*	jay ew
thou hast had	*tu as eu*	tu ahs ew
he has had	*il a eu*	eel ah ew
she has had	*elle a eu*	el ah ew
we have had	*nous avons eu*	nooz avongz ew
you have had	*vous avez eu*	vooz avayz ew
they have had	*ils ont eu*	eels ont ew

Pluperfect.

I had had	*j'avais eu*	javayz ew
thou hast had	*tu avais eu*	tu avayz ew
he had had	*il avait eu*	eel avait ew
we had had	*nous avions eu*	nooz aveeohngz ew
you had had	*vous aviez eu*	vooz aveeayz ew
they had had	*ils avaient eu*	eels avait ew

Past Anterior.

I had had	*j'eus eu*	jeus ew
thou hadst had	*tu eus eu*	tu eus ew
he had had	*il eut eu*	eel eut ew
we had had	*nous eûmes eu*	nooz eums ew
you had had	*vous eûtes eu*	vooz euts ew
they had had	*ils eurent eu*	eels eurt ew

Future.

I shall have	*j'aurai*	joray
thou shalt have	*tu auras*	tu orah
he shall have	*il aura*	eel orah
we shall have	*nous aurons*	nooz orong
you shall have	*vous aurez*	vooz oray
they shall have	*ils auront*	eels orong

Future Anterior.

I shall have had	*j'aurai eu*	joray ew
thou shalt have had	*tu auras eu*	tu orahs ew
he shall have had	*il aura eu*	eel orah ew
we shall have had	*nous aurons eu*	nooz orongz ew
you shall have had	*vous aurez eu*	vooz orayz ew
they shall have had	*ils auront eu*	eels oront ew

Conditional Present.

I should have	*j'aurais*	joray
thou shouldst have	*tu aurais*	tu oray
he should have	*il aurait*	eel oray
we should have	*nous aurions*	nooz oreeong
you should have	*vous auriez*	vooz oreeay
they should have	*ils auraient*	eels oray

Conditional Past.

I should have had	*j'aurais eu*	jorays ew
thou shouldst have had	*tu aurais eu*	tu orays ew
he should have had	*il aurait eu*	eel orait ew
we should have had	*nous aurions eu*	nooz areeongz ew
you should have had	*vous auriez eu*	vooz oreeayz ew
they should have had	*ils auraient eu*	eels orait ew

IMPERATIVE MOOD.

Have	*aie*	ay
let us have	*ayons*	ayong
have (ye)	*ayez*	ayay

SUBJUNCTIVE MOOD.

Present.

That I may have	*que j'aie*	keh jai
that thou mayest have	*que tu aies*	keh tu ai
that he may have	*qu'il ait*	keel ai
that we may have	*que nous ayons*	keh nooz ayong
that you may have	*que vous ayez*	keh vooz ayay
that they may have	*qu'ils aient*	keels ai

Imperfect.

That I might have	*que j'eusse*	keh jeuss
that thou mightest have	*que tu eusses*	keh tu euss
that he might have	*qu'il eût*	keel eu
that we might have	*que nous eussions*	keh nooz eussyong
that you might have	*que vous eussiez*	keh vooz eussyay
that they might have	*qu'ils eussent*	keels euss

Perfect.

That I may have had	*que j'aie eu*	keh jai ew
that thou mayest have had	*que tu aies eu*	keh tu ais ew

that he may have had	*qu'il ait eu*	keel ait ew
that we may have had	*que nous ayons eu*	keh nooz ayongz ew
that you may have had	*que vous ayez eu*	keh vooz ayayz ew
that they may have had	*qu'ils aient eu*	keels ait ew

Pluperfect.

That I might have had	*que j'eusse eu*	keh jeuss ew
that thou mightest have had	*que tu eusses eu*	keh tu euss ew
that he might have had	*qu'il eut eu*	keel eut ew
that we might have had	*que nous eussions eu*	keh nooz eussyongs ew
that you might have had	*que vous eussiez eu*	keh vooz eussyaz ew
that they might have had	*qu'ils eussent eu*	keels eusst ew

THE AUXILIARY VERB "ETRE"—TO BE.

INFINITIVE MOOD.

Present. *Etre* (ettr), to be. *Past.* *Avoir été* (avoahr ettay), to have been.

PARTICIPLES.

Etant (ettaung), being. *Eté* (ettay), been. *Ayant été* (ayaunt ettay) having been.

INDICATIVE MOOD.

Present.

I am	*je suis*	jeh swee
thou art	*tu es*	tu ay
he is	*il est*	eel ay
she is	*elle est*	el ay
we are	*nous sommes*	noo som
you are	*vous êtes*	vooz ait
they are	*ils (elles) sont*	eel song

Imperfect.

I was	*j'étais*	jettay
thou wert	*tu étais*	tu ettay
he was	*il était*	il ettay
we were	*nous étions*	nooz ettyong
you were	*vous étiez*	vooz ettyay
they were	*ils étaient*	eels ettay

Past Definite.

I was	*je fus*	je fu
thou wert	*tu fus*	tu fu
he was	*il fut*	eel fu
we were	*nous fûmes*	noo fume
you were	*vous fûtes*	voo fute
they were	*ils furent*	eel fure

Perfect.

I have been	*j'ai été*	jai ettay
thou hast been	*tu as été*	tu ah ettay
he has been	*il a été*	eel ah ettay
she has been	*elle a été*	el ah ettay
we have been	*nous avons été*	nooz avongz ettay
you have been	*vous avez été*	vooz avayz ettay
they have been	*ils (elles) ont été*	eels ont ettay

Pluperfect.

I had been	*j'avais été*	javayz ettay
thou hadst been	*tu avais été*	tu avayz ettay
he had been	*il avait été*	eel avait ettay
we had been	*nous avions été*	nooz avyons ettay
you had been	*vous aviez été*	vooz avyayz ettay
they had been	*ils avaient été*	eels avait ettay

Past Anterior.

I had been	*j'eus été*	jeuz ettay
thou hadst been	*tu eus été*	tu euz ettay
he had been	*il eut été*	eel eut ettay
we had been	*nous eûmes été*	nooz eums ettay
you had been	*vous eûtes été*	vooz euts ettay
they had been	*il eurent éte*	eels eurt ettay

Future.

I shall be	*je serai*	je serray
thou shalt be	*tu seras*	tu serrah
he shall be	*il sera*	eel serrah
we shall be	*nous serons*	noo serrong
you shall be	*vous serez*	voo serray
they shall be	*ils seront*	eel serong

Future Anterior.

I shall have been	*j'aurai été*	joray ettay
thou shalt have been	*tu auras été*	tu orahs ettay
he shall have been	*il aura été*	eel orah ettay
we shall have been	*nous aurons été*	nooz orongz ettay
you shall have been	*vous aurez été*	vooz orayz ettay
they shall have been	*ils auront été*	eels oront ettay

Conditional Present.

I should be	*je serais*	je serray
thou shouldst be	*tu serais*	tu serray
he should be	*il serait*	eel serray
we should be	*nous serions*	noo serreeong
you should be	*vous seriez*	voo serreeay
they should be	*ils seraient*	eel serray

Conditional Past.

I should have been	*j'aurais été*	jorays ettay
thou shouldst have been	*tu aurais été*	tu orays ettay
he should have been	*il aurait été*	eel orait ettay
we should have been	*nous aurions été*	nooz oreeongz ettay
you should have been	*vous auriez été*	vooz oreeayz ettay
they should have been	*ils auraient été*	eels orait ettay

IMPERATIVE MOOD.

Be	*soi*	souah
let us be	*soyons*	swoiyong
be (ye)	*soyez*	swoiyay

SUBJUNCTIVE MOOD.

Present.

That I may be	*que je sois*	keh jeh souah
that thou mayest be	*que tu sois*	keh tu souah
that he may be	*qu'il soit*	keel souah
that we may be	*que nous soyons*	keh noo swoiyong
that you may be	*que vous soyez*	keh voo swoiyay
that they may be	*qu'ils soient*	keel souah

Imperfect.

That I might be	*que je fusse*	keh jeh fusse
that thou mightest be	*que tu fusses*	keh tu fusse
that he might be	*qu'il fût*	keel fu
that we might be	*que nous fussions*	keh noo fussyong
that you might be	*que vous fussiez*	keh voo fussyay
that they might be	*qu'ils fussent*	keel fusse

Perfect.

That I may have been	*que j'aie été*	keh jai ettay
that thou mayest have been	*que tu aies été*	keh tu aiz ettay
that he may have been	*qu'il ait été*	keel ait ettay
that we may have been	*que nous ayons été*	keh nooz ayongz ettay
that you may have been	*que vous ayez été*	keh vooz ayayz ettay
that they may have been	*qu'ils aient été*	keels ait ettay

Pluperfect.

That I might have been	*que j'eusse été*	keh jeuss ettay

that thou mightest have been	*que tu eusses été*	keh tu euss ettay
that he might have been	*qu'il eût été*	keel eut ettay
that we might have been	*que nous eussions été*	keh nooz eussyongs ettay
that you might have been	*que vous eussiez été*	keh vooz eussyaze ettay
that they might have been	*qu'ils eussent été*	keels eusst ettay

REGULAR VERBS.

The infinitives of verbs in the French language have the four following terminations:

er,	as in *parler*,	to speak,
ir,	in in *finir*,	to finish,
oir,	as in *reçevoir*,	to receive,
re,	as in *vendre*,	to sell.

All that precedes this infinitive termination is called the "*root*" of the verb.

Verbs which only change their terminations and not their roots are called "*Regular Verbs;*" those which change their roots, "*Irregular Verbs.*"

The verbs ending in "*oir*" are all irregular, and the French language therefore, has in reality only three regular conjugations.

The First Conjugation ends in "*er.*"
The Second Conjugation ends in "*ir.*"
The Third Conjugation ends in "*oir.*"
The Fourth Conjugation ends in "*re.*"

The past participle is formed by adding to the root of the First Conjugation an "*é,*" to that of the second an "*i,*" to the fourth a "*u;*" as:

Parl-er,	to speak;	*parlé*,	spoken
Fin-ir,	to finish;	*fini*,	finished.
Vend-re,	to sell;	*vendu*,	sold.

The student may now proceed to the mastery of

THE FOUR CONJUGATIONS.

FIRST CONJUGATION.

INFINITIVE MOOD.

Present. *Parler* (parlay), to speak. *Past.* *Avoir parlé*, to have spoken.

PARTICIPLES.

Parlant (parlong), speaking. *Parlé*, spoken. *Ayant parlé*, having spoken.

INDICATIVE MOOD.

Present.

SIMPLE TENSES. COMPOUND TENSES.

Absolu. *Antérieur.*

I speak. I have spoken.

Je parle	jeh parl	*J'ai parlé*
tu parles	tu parl	*tu as parlé*
il parle	eel parl	*il a parlé*
nous parlons	noo parlong	*nous avons parlé*
vous parlez	voo parlay	*vous avez parlé*
ils parlent	eel parl	*ils ont parlé*

Descriptive.

Imperfect. *Pluperfect.*

I spoke. I had spoken.

Je parlais	jeh parlay	*J'avais parlé*
tu parlais	tu parlay	*tu avais parlé*
il parlait	eel parlay	*il avait parlé*
nous parlions	noo parlyong	*nous avions parlé*
vous parliez	voo parlyay	*vous aviez parlé*
ils parlaient	eel parlay	*ils avaient parlé*

Narrative.

Past Definite. *Past Anterior.*

I spoke. I had spoken.

Je parlai	jeh parlay	*J'eus parlé*
tu parlas	tu parla	*tu eus parlé*
il parla	eel parla	*il eut parlé*
nous parlâmes	noo parlahme	*nous eûmes parlé*
vous parlâtes	voo parlahte	*vous eûtes parlé*
ils parlèrent	eel parlaire	*ils eurent parlé*

Future.

Future. *Future Anterior.*

I shall speak. I shall have spoken.

Je parlerai	jeh parleray	*J'aurai parlé*
tu parleras	tu parlera	*tu auras parlé*
il parlera	eel parlera	*il aura parlé*
nous parlerons	noo parlerong	*nous aurons parlé*
vous parlerez	voo parleray	*vous aurez parlé*
ils parleront	eel parlerong	*ils auront parlé*

Conditional.

Present. *Past.*

I should speak. I should have spoken.

Je parlerais	jeh parleray	*J'aurais parlé*
tu parlerais	tu parleray	*tu aurais parlé*
il parlerait	eel parleray	*il aurait parlé*
nous parlerions	noo parlereeong	*nous aurions parlé*
vous parleriez	voo parlereeay	*vous auriez parlé*
ils parleraient	eel parleray	*ils auraient parlé*

SUBJUNCTIVE MOOD.

Present. *Past.*

That I may speak. That I may have spoken.

Que je parle	keh jeh parl	*Que j'aie parlé*
que tu parles	keh tu parl	*que tu aies parlé*
qu'il parle	keel parl	*qu'il ait parlé*
que nous parlions	keh noo parlyong	*que nous ayons parlé*
que vous parliez	keh voo parlyay	*que vous ayez parlé*
qu'ils parlent	keel parl	*qu'ils aient parlé*

Imperfect. *Pluperfect.*

That I might speak. That I might have spoken.

Que je parlasse	keh jeh parlass	*Que j'eusse parlé*
que tu parlasses	keh tu parlass	*que tu eusses parlé*
qu'il parlât	keel parlah	*qu'il eût parlé*
que nous parlassions	keh noo parlassyong	*que nous eussions parlé*
que vous parlassiez	keh voo parlassyay	*que vous eussiez parlé*
qu'ils parlassent	keel parlass	*qu'ils eussent parlé*

IMPERATIVE MOOD.

Parle (parl), speak thou
qu'il parle (keel parl), let him speak
parlons (parlong), let us speak
parlez (parlay), speak ye
qu'ils parlent (keel parl), let them speak.

SECOND CONJUGATION.

INFINITIVE MOOD.

Present. *Finir* (feeneer), to finish. *Past.* *Avoir fini* (feenee), to have finished.

PARTICIPLES.

Finissant (feeneesong), finishing. *Fini*, finished. *Ayant fini*, having finished.

INDICATIVE MOOD.

Present.

SIMPLE TENSES. COMPOUND TENSES.

Absolu. *Antérieur.*

I finish. I have finished.

Je finis	jeh feenee	*J'ai fini*
tu finis	tu feenee	*tu as fini*

il finit	eel feenee	*il a fini*
nous finissons	noo feeneessong	*nous avons fini*
vous finissez	voo feeneessay	*vous aviez fini*
ils finissent	eel feeneess	*ils ont fini*

Descriptive.

Imperfect.		*Pluperfect.*
I finished.		I had finished.
Je finissais	jeh feeneessay	*J'avais fini*
tu finissais	tu feeneessay	*tu avais fini*
il finissait	eel feeneessay	*il avait fini*
nous finissions	noo feeneessyong	*nous avions fini*
vous finissiez	voo feeneessyay	*vous aviez fini*
ils finissaient	eel feeneessay	*ils avaient fini*

Narrative.

Past Definite.		*Past Anterior.*
I finished.		I had finished.
Je finis	jeh feenee	*J'eus fini*
tu finis	tu feenee	*tu eus fini*
il finit	eel feenee	*il eut fini*
nous finîmes	noo feeneem	*nous eûmes fini*
vous finîtes	voo feeneet	*vous eûtes fini*
ils finirent	eel feeneer	*ils eurent fini*

Future.

Future.		*Future Anterior.*
I shall finish.		I shall have finished.
Je finirai	jeh feeneeray	*J'aurai fini*
tu finiras	tu feeneera	*tu auras fini*
il finira	eel feeneera	*il aura fini*
nous finirons	noo feeneerong	*nous aurons fini*
vous finirez	voo feeneeray	*vous aurez fini*
ils finiront	eel feeneerong	*ils auront fini*

Conditional.

Present.		*Past.*
I should finish.		I should have finished.
Je finirais	jeh feeneeray	*J'aurais fini*
tu finirais	tu feeneeray	*tu aurais fini*
il finirait	eel feeneeray	*il aurait fini*
nous finirions	noo feeneereeong	*nous aurions fini*
vous finiriez	voo feeneereeay	*vous auriez fini*
ils finiraient	eel feeneeray	*ils auraient fini*

SUBJUNCTIVE MOOD.

Present.		*Past.*
That I may finish.		That I may have finished.
Que je finisse	keh jeh feeneess	*Que j'aie fini*
que tu finisses	keh tu feeneess	*que tu aies fini*
qu'il finisse	keel feeneess	*qu'il ait fini*
que nous finissions	keh noo feeneessee-ong	*que nous ayons fini*
que vous finissiez	keh voo feeneesseeay	*que vous ayez fini*
q'uil finissent	keel feeneess	*qu'ils ayent fini*

Imperfect.		*Pluperfect.*
That I might finish.		That I might have finished.
Que je finisse	keh jeh feeneess	*Que j'eusse fini*
que tu finisses	keh tu feeneess	*que tu eusse fini*
qu'il finit	keel feenee	*qu'il eût fini*
que nous finissions	keh noo feeneess-yong	*que nous eussions fini*
que vous finissiez	keh voo feeneessyay	*que vous eussiez fini*
qu'ils finissent	keel feeneess	*qu'ils eussent fini*

IMPERATIVE MOOD.

Finis (feenee), finish	*finissons* (feeneessong), let us finish
qu'il finisse (keel feeneess), let him finish	*finissez* (feeneessay), finish ye
	qu'ils finissent (keel feeneess), let them finish

THIRD CONJUGATION.

INFINITIVE MOOD.

Present.	*Past.*
Recevoir (ressevouahr), to receive.	*Avoir reçu*, to have received.

PARTICIPLES.

Recevant (ressevong), receiving.	*Reçu* (ressu), received.
	Ayant reçu, having received.

INDICATIVE MOOD.

Present.

SIMPLE TENSES.		COMPOUND TENSES.
Absolu.		*Antérieur.*
I receive.		I have received.
Je reçois	jeh ressouah	*J'ai reçu*
tu reçois	tu ressouah	*tu as reçu*
il reçoit	eel ressouah	*il a reçu*
nous recevons	noo ressevong	*nous avons reçu*
vous recevez	voo ressevay	*vous avez reçu*
ils reçoivent	eel ressouahve	*ils ont reçu*

Descriptive.

Imperfect.		*Pluperfect.*
I received.		I had received.
Je recevais	jeh ressevay	*J'avais reçu*
tu recevais	tu ressevay	*tu avais reçu*
il recevait	eel ressevay	*il avait reçu*
nous recevions	noo ressevyong	*nous avions reçu*
vous receviez	voo ressevyay	*vous aviez reçu*
ils recevaient	eel ressevay	*ils avaient reçu*

Narrative.

Past Definite.		*Past Anterior.*
I received.		I had received.
Je reçus	jeh ressu	*J'eus reçu*
tu reçus	tu ressu	*tu eus reçu*
il reçut	eel ressu	*il eut reçu*
nous reçûmes	noo ressume	*nous eûmes reçu*
vous reçûtes	voo ressute	*vous eûtes reçu*
ils reçurent	eel ressure	*ils eurent reçu*

Future.

Future.		*Future Anterior.*
I shall receive.		I shall have received.
Je recevrai	jeh ressvray	*J'aurai reçu*
tu recevras	tu ressvrah	*tu auras recu*
il recevra	eel ressvrah	*il aura reçu*
nous recevrons	noo ressvrong	*nous aurons reçu*
vous recevrez	voo ressvray	*vous aurez reçu*
ils recevront	eel ressvrong	*ils auront reçu*

Conditional.

Present.		*Past.*
I should receive.		I should have received.
Je recevrais	jeh ressvray	*J'aurais reçu*
tu recevrais	tu ressvray	*tu aurais reçu*
il recevrait	eel ressvray	*il aurait reçu*
nous recevrions	noo ressvreeong	*nous aurions reçu*
vous recevriez	voo ressvreeay	*vous auriez reçu*
ils recevraient	eel ressvray	*ils auraient reçu*

SUBJUNCTIVE MOOD.

Present.		*Past.*
That I may receive.		That I may have received.
Que je reçoive	keh jeh ressouahve	*Que jaie reçu*
que tu reçoives	keh tu ressouahve	*que tu aies reçu*
qu'il reçoive	keel ressouahve	*qu'il ait reçu*
que nous recevions	keh noo ressvyong	*que nous ayons reçu*
que vous receviez	keh voo ressvyay	*que ous ayez reçu*
qu'ils reçoivent	keel ressouahve	*qu'ils aient reçu*

Imperfect.		*Pluperfect.*
That I might receive.		That I might nave received.
Que je reçusse	keh jeh ressuce	*Que jeusse reçu*
que tu reçusses	keh tu ressuce	*que tu eusses reçu*
qu'il reçût	keel ressu	*qu'il eût reçu*
que nous reçussions	keh noo ressussyong	*que nous eussions reçu*
que vous reçussiez	keh voo ressussyay	*que vous eussiez reçu*
qu'ils reçussent	keel ressusse	*qu'ils eussent reçu*

IMPERATIVE MOOD.

Reçois (ressouah), receive thou — *recevons* (ressevong), let us receive
recevez (ressevay), receive ye
qu'il reçoive (keel ressouahve), let him receive — *qu'ils reçoivent* (keel ressouahve), let them receive

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FOURTH CONJUGATION.

INFINITIVE MOOD.

Present.	*Past.*
Vendre (vaundr), to sell.	*Avoir vendu*, to have sold.

Participles.

Vendant (vaundong), selling. — *Vendu* (vaundu), sold. *Ayant vendu*, having sold.

INDICATIVE MOOD.

Present.

SIMPLE TENSES.		COMPOUND TENSES.
Absolu.		*Antérieur.*
I sell.		I have sold.
Je vends	je vong	*J'ai vendu*
tu vends	tu vong	*tu as vendu*
il vend	eel vong	*il a vendu*
nous vendons	noo vaundong	*nous avons vendu*
vous vendez	voo vaunday	*vous avez vendu*
ils vendent	eel vaund	*ils ont vendu*

Descriptive.

Imperfect.		*Pluperfect.*
I sold.		I had sold.
Je vendais	jeh vaunday	*J'avais vendu*
tu vendais	tu vaunday	*tu avais vendu*
il vendait	eel vaunday	*il avait vendu*
nous vendions	noo vaundyong	*nous avions vendu*
vous vendiez	voo vaundyai	*vous aviez vendu*
ils vendaient	eel vaunday	*ils avaient vendu*

Narrative.

Past Definite.		*Past Anterior.*
I sold.		I had sold.
Je vendis	jeh vaundee	*J'eus vendu*
tu vendis	tu vaundee	*tu eus vendu*
il vendit	eel vaundee	*il eut vendu*
nous vendîmes	noo vaundeem	*nous eûmes vendu*
vous vendîtes	voo vaundeet	*vous eûtes vendu*
ils vendirent	eel vaundeer	*ils eurent vendu*

Future.

Future.		*Past.*
I shall sell.		I shall have sold.
Je vendrai	jeh vaundray	*J'aurai vendu*
tu vendras	tu vaundrah	*tu auras vendu*
il vendra	eel vaundrah	*il aura vendu*
nous vendrons	noo vaundrong	*nous aurons vendu*
vous vendrez	voo vaundray	*vous aurez vendu*
ils vendront	eel vaundrong	*ils auront vendu*

Condilional.

Present.		*Past.*
I should sell.		I should have sold.
Je vendrais	jeh vaundray	*J'aurais vendu*
tu vendrais	tu vaundray	*tu aurais vendu*
il vendrait	eel vaundray	*il aurait vendu*
nous vendrions	noo vaundreeong	*nous aurions vendu*
vons vendriez	voo vaundreeay	*vous auriez vendu*
ils vendraient	eel vaundray	*ils auraient vendu*

SUBJUNCTIVE MOOD.

Present.		*Past.*
That I may sell.		That I may have sold.
Que je vende	keh jeh vaund	*Que j'aie vendu*
que tu vendes	keh tu vaund	*que tu aies vendu*
qu'il vende	keel vaund	*qu'il ait vendu*
que nous vendions	keh noo vaundyong	*que nous ayons vendu*
que vous vendiez	keh voo vaundyay	*que vous ayez vendu*
qu'ils vendent	keel vaund	*qu'ils aient vendu*
Imperfect.		*Pluperfect.*
That I might sell.		That I might have sold
Que je vendisse	keh jeh vaundeess	*Que j'eusse vendu*
que tu vendisses	keh tu vaundeess	*que tu eusses vendu*
qu'il vendît	keel vaundee	*qu'il eût vendu*
que nous vendissions	keh noo vaundeess-yong	*que nous eussions vendu*
que vous vendissiez	keh voo vaundeessyay	*que vous eussiez vendu*
qu'ils vendissent	keel vaundeess	*qu'ils eussent vendu*

IMPERATIVE MOOD.

Vends (vong), sell thou — *vendons* (vaundong), let us sell
vendez (vaunday), sell ye
qu'il vende (keel vaunde), let him sell — *qu'ils vendent* (keel vaund), let them sell

VOCABULARY OF VERBS.

To eat	*manger*	maunjay
to drink	*boire*	bouahr
to be thirsty	*avoir soif*	avouahr souaf
to be hungry	*avoir faim*	avouahr fang
to breakfast	*déjeûner*	dayjeunai
to dine	*dîner*	deenai
to sup	*souper*	soopai
to serve	*servir*	sareveer
to carve	*trancher*	traunshai
to smoke	*fumer*	fumai
to sneeze	*éternuer*	aytairnuai
to cough	*tousser*	toossai
to think	*penser*	paungsai
to reflect	*réfléchir*	rayflaysheer
to speak	*parler*	parlai
to say	*dire*	deer
to repeat	*répéter*	raypaytai
to explain	*déclarer*	dayclarrai
to be quiet	*se taire*	seh tare
to chat	*causer*	cosay
to tell	*raconter*	raccongtai
to ask	*demander*	demaundai
to answer	*répondre*	raypongdr
to reply	*répliquer*	raypleekai
to be mistaken	*se tromper*	seh trompai
to object	*objecter*	objectai
to doubt	*douter*	dootai
to affirm	*affirmer*	affeermai
to prove	*prouver*	proovai
to assure	*assurer*	assurai
to deny	*nier*	neeai
to maintain	*soutenir*	sooteneer
to dispute	*disputer*	disputai

ENGLISH.	FRENCH.	PRONUNCIATION.
to consent	*consentir*	congsaunteer
to approve	*approuver*	approovai
to praise	*louer*	looai
to admire	*admirer*	admeerai
to blame	*blâmer*	blahmai
to believe	*croire*	crouahr
to know	*savoir*	savouahr
not to know	*ignorer*	eenyorai
to imagine	*imaginer*	eemajeenai
to compare	*comparer*	compahrai
to imitate	*imiter*	eemeetai
to forget	*oublier*	oobleeai
to remember	*se souvenir*	seh soovenneer
to wish, to will	*vouloir*	voulouahr
to desire	*désirer*	dayseerai
to wish	*souhaiter*	sooaytai
to love	*aimer*	aimai
to flatter	*flatter*	flattai
to embrace	*embrasser*	aumbrassai
to hope	*espérer*	espayrai
to rejoice	*réjouir*	rayjooeer
to give	*donner*	donnai
to thank	*remercier*	remmairceeai
to esteem	*estimer*	esteemai
to honor	*honorer*	onorai
to despise	*mépriser*	maypreezai
to hate	*haïr*	haeer
to offend	*offenser*	offongsai
to insult	*insulter*	angsuhltai
to quarrel	*quereller*	kerrellai
to swear	*jurer*	jurai
to punish	*punir*	puneer
to beat	*battre*	batre
to weep	*pleurer*	pleuhrai
to sigh	*soupirer*	sooperai
to regret	*regretter*	regrettai
to repent	*se repentir*	seh repaunteer
to excuse	*excuser*	excusai
to pardon	*pardonner*	pardonnai
to revenge	*venger*	vaungjai
to joke	*railler*	raeelyai
to laugh	*rire*	reer
to live	*vivre*	veevr
to feel	*sentir*	saunteer
to touch	*toucher*	tooshai
to taste	*gouter*	gootai
to see	*voir*	vouahr
to hear	*entendre*	auntaundr
to grow	*croître*	crouahtr
to go	*aller*	allai
to go out	*sortir*	sorteer
to return	*retourner*	retoornai
to meet	*rencontrer*	rauncongtrai
to follow	*suivre*	sweevr
to run	*courir*	cooreer
to jump	*sauter*	sotai
to fall	*tomber*	tombai
to dance	*danser*	daungsai
to play	*jouer*	jooai
to ascend	*monter*	mongtai
to descend	*descendre*	dessaundr
to sit down	*s'asseoir*	sassouahr
to lie down	*se coucher*	seh cooshai
to rest	*se reposer*	seh repozai
to sleep	*dormir*	dormeeer
to dream	*rêver*	rayvai
to awake	*s'éveiller*	sayvailyai
to get up	*se lever*	seh levvai

ENGLISH.	FRENCH.	PRONUNCIATION.
to dress	*s'habiller*	s'abbeelyai
to draw	*tirer*	teerai
to show	*montrer*	mongtrai
to present	*présenter*	praysauntai
to take	*prendre*	praundr
to accept	*accepter*	acceptai
to refuse	*refuser*	reffusai
to receive	*recevoir*	ressevouahr
to spoil	*gâter*	gahtai
to throw	*jeter*	jettai
to lose	*perdre*	pairdr
to look for	*chercher*	shairshai
to find	*trouver*	troovai
to hide	*cacher*	cashai
to cover	*couvrir*	coovreer
to uncover	*découvrir*	daycoovreer
to roast	*rôtir*	roteer
to boil	*bouillir*	booeelyeer
to weigh	*peser*	pezai
to build	*bâtir*	bahteer
to sow	*semer*	semmai
to pluck	*cueillir*	kileyeer
to plant	*planter*	plauntai
to reap	*moissonner*	mouahssonnai

VOCABULARY OF ADVERBS.

At first	*d'abord*	d'abor
previously	*auparavant*	oparravang
afterwards	*ensuite*	aunsweet
together	*ensemble*	aunsaumbl
at last	*enfin*	aunfang
where	*où*	oo
here	*ici*	[illegible]
there	*là*	lah
elsewhere	*ailleurs*	aeellyure
above	*dessus*	dessu
below	*dessous*	dessoo
within	*dedans*	deddong
without	*dehors*	dehor
everywhere	*partout*	partoo
nowhere	*nulle part*	nule par
up	*en haut*	aung ho
down	*en bas*	aung bah
anywhere	*quelque part*	kelkeh par
already	*déjà*	dayjah
often	*souvent*	souvong
sometimes	*quelquefois*	kelcahfouah
in future	*à l'avenir*	ah l'avneer
always	*toujours*	toojoor
never	*jamais*	jammay
soon	*bientôt*	beeangto
immediately	*aussitôt*	osito
late	*tard*	tar
early	*tôt*	to
at present	*à présent*	ah praysong
quickly	*vite*	veet
at once	*tout de suite*	too deh sweet
afterwards	*puis*	pwee
yesterday	*hier*	yare
yesterday evening	*hier au soir*	yare o souahr
to-day	*aujourd'hui*	ojoordwee
to-morrow	*demain*	demmang
to-morrow morning	*demain matin*	demmang mattang
to-morrow evening	*demain soir*	demmang souahr
day after to-morrow	*après-demain*	appray demmang
enough	*assez*	assay
too much	*trop*	tro
little	*peu*	peuh

ENGLISH.	FRENCH.	PRONUNCIATION.
much	*beaucoup*	bocoo
very	*très, fort*	tray, fore
more	*plus*	plu
less	*moins*	mouang
at least	*au moins*	o mouang
thus	*si*	see
nearly	*presque*	pressk
about	*environ*	aungveerong
all	*tout*	too
altogether	*tout-à-fait*	toot-ah-fay
only	*seulement*	seuhlmong
well	*bien*	beeang
better	*mieux*	meyew
so much the better	*tant-mieux*	tong meyew
bad	*mal*	mal
worse	*pis*	pee
rather	*plutôt*	pluto
without doubt	*sans doute*	song doot
indeed	*en effet*	aun effay
on the contrary	*au contraire*	o congtrare
scarcely	*à peine*	ah pane
perhaps	*peut-être*	put-aitr
all at once	*tout-à-coup*	toot-ah-coo
not at all	*point du tout*	pouang du too
not yet	*pas encore*	paz auncore
nothing	*rien*	reeang
nothing at all	*rien du tout*	reeang du too

VOCABULARY OF PREPOSITIONS.

Or	*ou*	oo
with, near	*chez, auprès*	shay, opray
near	*près*	pray
in, within	*dans, en*	dong, aung
before	*avant*	avvong
behind	*derrière*	derreeare
below	*sous*	soo
over	*sur*	sure
against	*vers*	vare
far from	*loin de*	louang deh
on the side of	*à côté de*	ah cotay deh
opposite	*vis-à-vis*	veez-ah-vee
round about	*autour de*	otoor deh
instead of	*au lieu de*	o leeyu deh
in the midst of	*au milieu de*	o millyu deh
on this side	*en-deçà de*	aung-dessah de
on the opposite side	*au-delà de*	o-dellah-deh
out of	*hors*	hor
after	*après*	appray
with	*avec*	avvec
since	*depuis*	deppwee
between	*entre—parmi*	aungtr—parmee
without	*sans*	song
for	*pour*	poor
through, by	*par*	par
against	*contre*	congtr
during	*pendant*	paundong

VOCABULARY OF CONJUNCTIONS.

either..or	*ou..ou*	oo..oo
neither..nor	*ni..ni*	nee..nee
also	*aussi*	ossi
but	*mais*	may
however	*cependant*	seppaundong
yet	*pourtant*	poortong
if	*si*	see
if not	*si non*	see nong
if only	*pourvu que*	poorvu keh
even if	*quand même*	kaung meym
although	*quoique*	couak
that is	*c'est-à-dire*	sait-ah-deer
as	*comme*	comm
except that	*outre que*	ootr keh
for	*car*	car
because	*parceque*	parsk
why	*pourquoi*	poorkoush
and	*et*	ai
therefore	*ainsi*	angsee
consequently	*par conséquent*	par congsaycong

CONVERSATION IN FRENCH.

HAVING by study of the foregoing made himself familiar with the salient features of the French grammar, the student will require to learn those niceties and elegancies of expression which make the French language the most graceful of all spoken tongues. These can be largely acquired by learning by heart the following vocabulary of phrases, which have been collated under different heads and thus will be the more readily memorized and more certainly retained.

CONSTANTLY OCCURRING EXPRESSIONS.

Tell me.	*Dites-moi.*	Deet mouah.
If you please.	*S'il vous plaît.*	Seel voo play.
Have the goodness.	*Ayez la bonté.*	Aiyai lah bongtai.
Yes, sir.	*Oui, Monsieur.*	Wee, mosseeu.
Yes, Madam.	*Oui, Madame.*	Wee, madamm.
Yes, Miss.	*Oui, Mademoiselle.*	Wee, madmouazel.
No, sir.	*Non, Monsieur.*	Nong, mosseeu.
Will you tell me?	*Voulez vous me dire?*	Voolai voo meh deer.
I thank you.	*Je vous remercie.*	Jeh voo remmairsee.
Do you speak English? French?	*Parlez vous anglais? français?*	Parlai-voo aunglai? fraunsai?
I do not speak French.	*Je ne parle pas français?*	Jeh neh parl pah fraunsai.
I understand.	*Je comprends.*	Jeh comprong.
I do not understand.	*Je ne comprends pas.*	Jeh neh comprong pah.
Do you understand?	*Comprenez-vous?*	Comprennai-voo.
Give me some bread.	*Donnez moi du pain.*	Donnai mouah du pang.
Bring me some coffee.	*Apportez-moi du café.*	Apportai-mouah du caffay.
Thank you.	*Merci.*	Mairsee.
Good morning.	*Bon jour.*	Bong joor.
How do you do?	*Comment vous portez vous?*	Commong voo portai voo?
Very well.	*Très-bien.*	Tray beeang.
I am very well.	*Je me porte fort bien.*	Jeh meh port fore beeang.
How is your father?	*Comment se porte monsieur votre pere?*	Commong seh port mosseeu votr pare?
How is your mother?	*Comment se porte madame votre mère?*	Commong seh port maddam votr mare?
She is not well.	*Elle ne se porte pas bien.*	El neh seh port pah beeang.
She is ill.	*Elle est malade.*	El ai mallad.
He is very ill.	*Il est bien malade.*	Eel ai beeang mallad.
She has a cold.	*Elle est enrhumée.*	El ait aunreemay.
I must go.	*Il faut partir.*	Eel fo parteer.
Good-by.	*Au plaisir.*	O playzeer.
Farewell.	*Adieu.*	Adieu.

ENGLISH.	FRENCH.	PRONUNCIATION.
Your servant.	*Votre serviteur.*	Votr sairveetur.
I wish you a good morning.	*Je vous souhaite le bon jour.*	Jeh voo sooate leh bong joor.
Good evening.	*Bon soir.*	Bong souar.
Good night.	*Bonne nuit.*	Bon nwee.
I wish you good night.	*Je vous souhaite une bonne nuit.*	Jeh voo sooate une bon nwee.
My compliments to your father.	*Saluez monsieur votre père de ma part.*	Salluai mossieu votr pare deh mah par.
I will not fail.	*Je n'y manquerai pas.*	Jeh nee maunkrai pah.

SPECULATORY.

What!	*Comment!*	Commong!
Is it possible?	*Serait-il possible!*	Serrait-eel posseebl?
Who would have believed it!	*Qui l'aurait cru!*	Kee loray cru!
Indeed!	*En vérité!*	Ong vereetay.
It is impossible.	*Cela est impossible.*	Slah ait amposseebl.
That cannot be.	*Cela ne se peut pas.*	Slah neh seh peu pah.
I am astonished at it.	*Je' suis bien étonné.*	Jong swee beean aitonnai.
It is incredible.	*C'est incroyable.*	Sait angcrwoyable.
I am sorry for it.	*J'en suis fâché.*	Jong swee fashai.
It is a great pity.	*C'est bien dommage.*	Say beeang dommaje.
It is a great misfortune.	*C'est un grand malheur.*	Sait ung grong malleur.
I am very glad.	*Je suis bien aise.*	Jeh swee beean aze.
I am very glad of it.	*J'en suis fort aise.*	Jong swee fort aze.
It gives me great joy.	*J'en ai bien de la joie.*	Jon ay beeang deh lah jouah.
I wish you joy.	*Je vous félicite.*	Jeh voo faileeseet.
I congratulate you on it.	*Je vous en fais mon compliment.*	Jeh vooze ong fay mong compleemong.

AGE.

How old are you?	*Quel âge avez-vous?*	Kel ahje avai voo?
I am twenty-two.	*J'ai vingt-deux ans.*	Jay vang-deuh ong.
I shall soon be thirty.	*J'ai bientôt trente ans.*	Jay beeangto traunt ong.
He looks older.	*Il paraît plus âgé.*	Eel paray pluze ahjai.
I did not think you were so old.	*Je ne vous croyais pas si âgé.*	Jeh neh voo crwoyai pah see ahjai.

TO ASK QUESTIONS.

What do you say?	*Que dites-vous?*	Keh deet voo?
Do you hear me?	*M'entendez-vous?*	Mauntaundai-voo?
I don't speak to you.	*Ce n'est pas à vous que je parle.*	Snay paz ah voo keh jeh parl.
Do you understand me?	*Me comprenez-vous?*	Meh comprennay voo?
Listen.	*Ecoutez.*	Aicootai.
Come here.	*Approchez—venez ici.*	Aproshai — Vennaiz eessee.
What is that?	*Qu'est-ce que cela?*	Case keh sla?
Why don't you answer?	*Pourquoi ne répondez-vous pas?*	Poorcouah neh raipondai voo pah?
What do you mean?	*Que voulez-vous dire?*	Keh voolai-voo deer?
Don't you speak French?	*Ne parlez-vous pas francais?*	Neh parlai voo pah fraunsay?
Very little, sir.	*Bien peu, Monsieur.*	Beeang peuh, mossieu.
Do you know Mr. H.?	*Connaissez-vous Monsieur H.?*	Connaissai voo mossieu H.?
I know him by sight.	*Je le connais de vue.*	Jeh leh connay deh vu.
I know him by name.	*Je le connais de nom.*	Jeh leh connay deh nong.
What do you call that?	*Comment appelez-vous cela?*	Comment applai voo sla?
What does that mean?	*Qu'est-ce que cela veut dire?*	Case keh sla veuh deer?
What is that good for?	*A quoi cela est-il bon?*	Ah couah sla ait eel bong?

MORNING CHAT.

What o'clock is it?	*Quelle heure est-il?*	Kel eur ait-eel?
It is near eight.	*Il est près de huit heures.*	Eel ai pray deh weet eur.
Light the fire.	*Faites du feu.*	Fate du feuh.
I am going to get up.	*Je vais me lever.*	Jeh vay meh levvai.
Get me some hot water.	*Allez me chercher de l'eau chaude.*	Allai meh shairshai deh lo shode.
Make haste.	*Ne soyez pas longtemps.*	Neh swoyai pah longtong.
How have you slept?	*Comment avez-vous dormi?*	Commont avai-voo dormee?
Did you sleep well?	*Avez-vous bien dormi?*	Avai-voo beeang dormee?
Very well, thank you.	*Très-bien, je vous remercie.*	Tray beeang, jeh voo remmairsee.
Not very well.	*Pas très-bien.*	Pah tray beeang.
I never woke all night.	*J'ai dormit tout d'un somme.*	Jay dormee too dung som.
I could not sleep.	*Je n'ai pas pu dormir.*	Jeh nai pah pu dormeer.
I never closed my eyes.	*Je n'ai pas fermé l'œil.*	Jeh nai pah fairmay lile.
I have been up this hour.	*Il y a une heure que je me suis levé.*	Eel ee ah une eur keh jeh meh swee leval.
You are an early riser.	*Vous êtes matinal.*	Vooz ait matteenal.
I generally rise early.	*Je me lève ordinairement de bonne heure.*	Jeh meh lave ordeenaremong deh bon eur.
Breakfast is ready.	*Le déjeûner est prêt.*	Leh daijeunay ai pray.
Is breakfast ready?	*Le déjeûner est-il prêt?*	Leh daijeunay ait eel pray?
Come to breakfast.	*Venez déjeûner.*	Vennay daijeunay.
That is enough.	*Cela est assez.*	Sla ait assay.
Some rolls.	*Des petits pains.*	Day pettee pang.
Do you drink tea or coffee?	*Prenez-vous du thé ou du café?*	Prennay-voo du tay oo du caffay?
This cream is sour.	*Cette crème s'est agrie.*	Set crame sait agree.
Will you take an egg?	*Voulez-vous manger un œuf?*	Voolay-voo maunjay un uf?
These eggs are hard.	*Ces œufs son durs.*	Saze euf son dure.
Pass me the butter.	*Passez-moi le beurre.*	Passay mouah leh beur.
Is the coffee strong enough?	*Le café est-il assez fort?*	Leh caffay ait eel assay fore?
We want more cups.	*Il nous manque des tasses.*	Eel noo maunk day tass.
Take some more sugar.	*Prenez encore du sucre.*	Prenaze auncore du sucr.
A piece of toast.	*Une rôtie.*	Une rotee.
Cold meat.	*De la viande froide.*	De lah veeaund frouad.
The table-cloth.	*La nappe.*	Lah nap.
The sugar-bowl.	*Le sucrier.*	Leh sucreeay.
Chocolate.	*Du chocolat.*	Du shocolah.
A knife.	*Un couteau.*	Ung cooto.
This knife is blunt.	*Ce couteau ne coupe pas.*	Seh cooto neh coop pas.
We have done breakfast.	*Nous avons fini de déjeûner.*	Nooz avong feenee deh daijeunay.

AT THE DINNER-TABLE.

Show me the bill of fare.	*Montrez-moi la carte.*	Mongtray mouah lah carte.
What soup will you have?	*Quelle soupe vous servirai-je?*	Kel soup voo sairveeraije.

ENGLISH.	FRENCH.	PRONUNCIATION.
Maccaroni soup.	*De la soupe au macaroni.*	Deh lah soup o maccaroni.
Have you any roast-beef?	*Avez-vous du bœuf rôti?*	Avay-voo du beuf rotee?
Not to-day.	*Pas aujourd'hui.*	Paz ojoordwee.
We have very fine fish.	*Nous avons de très-bon poisson.*	Nooz avong deh tray-bong pouahssong.
What wines will you have?	*Quels vins Monsieur désire-t-il?*	Kel vang mossieu day-zeer-t-eel?
Let us see.	*Voyons.*	Vwoiyong.
Here is the list.	*En voici la liste.*	Ong vwoysee lah leest.
We shall dine at six o'clock.	*Nous dînerons à six heures.*	Noo deenerons ah seece eur.
Be punctual.	*Soyez exacte.*	Swoyaiz exact.
What shall I help you to?	*Que vous servirai-je?*	Keh vos sairveeraije?
Will you take some soup?	*Voulez-vous un peu de soupe?*	Voolai-vooz ung peu deh soup?
No, thank you.	*Merci bien.*	Mairsee beeang.
Willingly.	*Très-volontiers.*	Tray volontyai.
Help yourself.	*Servez-vous.*	Sairvai voo.
Do you take pepper?	*Mangez-vous le poivre?*	Maunjai voo leh pouahvr.
Potatoes.	*Des pommes de terre.*	Day pom deh tare.
The mustard pot.	*Le moutardier.*	Leh mootardyai.
Give me a clean fork.	*Donnez-moi une fourchette propre.*	Donnay mouah une foorshet propr.
Are you hungry?	*Avez-vous faim?*	Avay-voo fang?
I am hungry.	*J'ai faim.*	Jay fang.
You don't eat.	*Vous ne mangez pas.*	Voo neh maunjay pah.
Are you thirsty?	*Avez-vous soif.*	Avay voo souaf?
I am very thirsty.	*J'ai bien soif.*	Jay beeang souaf.
I am dying of thirst.	*Je meurs de soif.*	Je meur deh souaf.
Take a glass of wine.	*Prenez un verre de vin.*	Prennaze ung vair de vang.
Give me something to drink.	*Donnez-moi à boire.*	Donnay mouah ah bouahr.
A cork-screw.	*Un tire-bouchon.*	Ung teer booshong.

TALK AT THE TEA-TABLE.

Tea is quite ready.	*Le thé est tout prêt.*	Leh tay ai too pray.
They are waiting for you.	*On vous attend.*	Ong vooz attong.
I am coming.	*Me voici.*	Meh vwoysee.
Pour out the tea.	*Versez le thé.*	Vairsay leh tay.
Bring a saucer.	*Apportez une soucoupe.*	Apportaze une soo-coop.
Ring, if you please.	*Sonnez, s'il vous plaît.*	Sounay seel voo play.
A little more milk.	*Encore un peu de lait.*	Auncore ung peu deh lay.
What will you take?	*Que prendrez-vous?*	Keh praundray voo?
A slice of bread and butter.	*Une beurrée—une tartine de beurre.*	Une beurray—une tarteen deh beur.
Hand the plate.	*Passez l'assiette.*	Passay lassyett.
Will you take some cake?	*Voulez-vous du gâteau?*	Voolay voo du gahto?
A small piece.	*Un petit morceau.*	Ung pettee morso.
Make some toast.	*Faites encore des rôties.*	Fates auncore day rotee.
Make haste.	*Dépêchez-vous.*	Daypayshay voo.
This is excellent tea.	*Voilà d'excellent thé.*	Vwoyla dexcellong tay.
The tea-tray.	*Le cabaret.*	Leh cabbaray.
The milk jug.	*Le pot au lait.*	Leh pote o lay.
A set of tea-things.	*Un service.*	Ung sairveece.
Brown bread.	*Du pain bis.*	Du pang bee.
White bread.	*Du pain blanc.*	Du pang blong.
Stale bread.	*Du pain rassis.*	Du pang rassee.
New bread.	*Du pain frais.*	Du pang fray.

BED-TIME.

ENGLISH.	FRENCH.	PRONUNCIATION.
It is late.	*Il est tard.*	Eel al tar.
It is not late.	*Il n'est pas tard.*	Eel nay pah tar.
It is still early.	*Il est encore de bonne heure.*	Eel ait auncore deh bon eur.
Are you tired?	*Etes-vous fatigué.*	Ait vóo fateegay?
Not at all.	*Point du tout.*	Pouang du too.
Not much.	*Pas beaucoup.*	Pa bocoo.
It is only ten.	*Il n'est que dix heures.*	Eel nay keh deeze eur.
It is time to go to bed.	*Il est l'heure de se coucher.*	Eel ai leur deh seh cooshay.
Is my room ready?	*Ma chambre est-elle prête?*	Ma shaumbr ait e prate?
Go and see.	*Allez voir.*	Allay vouahr.
A blanket.	*Une couverture de laine.*	Une coovairture deh lane.
Good night.	*Bon soir.*	Bong souahr.
I wish you a good night.	*Je vous souhaite une bonne nuit.*	Jeh-voo sooate une bon nwee.
I am sleepy.	*J'ai sommeil.*	Jay sommail.
Are you sleepy?	*Avez-vous sommeil?*	Avay-voo sommail?

THE TIME OF DAY.

What o'clock is it by your watch?	*Quelle heure est-il à votre montre?*	Kel eur ait-eel a voh mauntr?
It has stopped.	*Elle s'est arrêtée.*	El sait arraytai.
I forgot to wind it up.	*J'ai oublié de la monter.*	Jay ooblieay deh la mauntay.
My watch is too fast.	*Ma montre est en avance.*	Ma mauntr ait an avaunce.
It gains.	*Elle avance.*	El avaunce.
It is too slow.	*Elle est en retard.*	El ait ong retard.
It is a quarter of an hour too slow.	*Elle retarde d'un quart d'heure.*	El retard dung kar deur.
It goes right.	*Elle va bien.*	El va beeang.
A quarter to eight.	*Huit heures moins un quart.*	Wheet eur mouans ung kar.
Midnight.	*Minuit.*	Meenwee.
Noon.	*Midi.*	Meedee.
A quarter past one.	*Une heure et quart.*	Une eur ai kar.
Half past four.	*Quatre heures et demie.*	Katr eur ai demmee.
Twenty minutes to six.	*Six heures moins vingt.*	Seece eur mouang vang.
It has just struck nine.	*Neuf heures viennent de sonner.*	Neuv eur veeyen deh sonnay.
Ten minutes past seven.	*Sept heures dix minutes.*	Set eur dee meenute.
Exactly three o'clock.	*Trois heures juste.*	Trouaz eur juste.
The clock is striking.	*Voilà l'horloge qui sonne.*	Vwoyla lorloje kee son.

THE PROMENADE.

Shall we take a little walk?	*Irons-nous faire un petit tour?*	Eerong noo fare ung pettee toor?
Willingly.	*De tout mon cœur.*	Deh too mong keur.
Where shall we go?	*Par où irons-nous?*	Par oo eerong noo?
On the high road.	*Sur la grande route.*	Sure la graunde root.
There is a good deal of dust.	*Il y fait beaucoup de poussiere.*	Eel ee fay bocoo deh poossvare.
Into the fields.	*Dans la campagne.*	Dong la caumpaine.
They are reaping.	*On moissonne.*	Ong mwoysson.
They are making hay.	*On fauche l'herbe.*	On foshe lairbe.
What a pleasant scent!	*Quelle odeur délicieuse!*	Kel odeur daileesee-yeuse.
An abundant harvest.	*Une moisson (une récolte) abondante.*	Une mwoyssong (une raicolt) abaundaunte.
Let us cross this field.	*Traversons ce champ.*	Travairsong seh shong.
Which is the way to A.?	*Quel est le chemin pour aller à A.?*	Kel ai leh shemmang pour allay ah A?

ENGLISH.	FRENCH.	PRONUNCIATION.
Where does this road lead?	*Où conduit cette route?*	Oo condwee set root?
Which way am I to go?	*De quel côté faut-il que j' aille?*	Deh kel cotay fot eel keh j'aeel?
Straight before you.	*Allez droit devant vous.*	Allay drouah devong voo.
To the left.	*A gauche.*	Ah goshe.
To the right.	*A droite.*	Ah drouate.
About a mile.	*Environ un mille.*	Ongveerong ung meel.
Hardly a mile.	*A peine un mille.*	Ah pane ung meel.
Let us go in.	*Rentrons.*	Rauntrong.

PERSONAL ENQUIRIES.

Do you know Mr. F.?	*Connaissez-vous Monsieur F.?*	Connassay voo mossieu F.?
I don't know anybody of that name.	*Je ne connais personne de ce nom.*	Jeh neh connay pairson deh seh nong.
I know him.	*Je le connais.*	Jeh leh connay.
Intimately.	*Intimement.*	Angteememong.
I am very intimate with him.	*Je suis très-lié avec lui.*	Jeh swee tray leeay avec lwee.
He is a friend of mine.	*Il est un de mes amis.*	Eel ait ung deh maze amee.
I have known him a long time.	*Je le connais depuis longtemps.*	Jeh leh connay depwee longtong.
He is my brother-in-law.	*C'est mon beau-frère.*	Sai mong bo-frare.
Do you know him?	*Le connaissez-vous?*	Leh connaissay-voo.
I know him very well.	*Je le connais parfaitement.*	Jeh leh connay parfatemong.
Where does he live?	*Où demeure-t-il?*	Oo demmeur-t-eel?
Close by.	*Ici près.*	Eessee pray.
A step or two from here.	*A deux pas d'ici.*	Ah deu pa deessee.
Is it far?	*Est-ce loin?*	Ai-ce louang.
Can you direct me to his house?	*Pouvez-vous m'indiquer sa maison?*	Poovay-voo mandeekay sah maisong?
I will show you where he lives.	*Je vous montrerai où il demeure.*	Jeh voo mauntrerai oo eel demmeur.

THE SEASONS.

Spring has come.	*Voilà le printemps arrivé.*	Vwoila leh prangtongs arreevay.
It is still cool.	*Il fait toujours un peu frais.*	Eel fay toojoors ung peu fray.
The trees are beginning to bud.	*Les arbres commencent à boutonner.*	Laiz arbr commaunse ah bootonnnay.
The season is very forward.	*La saison est bien avancée.*	Lah saizon ai beeang avaunsay.
The season is very backward.	*La saison est bien retardée.*	Lah saizon ai beeang retarday.
Summer is coming.	*L'été approche.*	Lettay approshe.
It is becoming warm.	*Il commence à faire chaud.*	Eel commaunse a fare sho.
I am very warm.	*J'ai bien chaud.*	Jay beeang sho.
It is very warm.	*Il fait très-chaud.*	Eel fay tray sho.
It is a fine day.	*C'est un beau jour.*	Sait ung bo joor.
The heat is unbearable.	*La chaleur est insupportable.*	Lah shalleur ait angsupportabl.
Let us go into the shade.	*Allons dans l'ombre.*	Allong dong lombr.
I think we are going to have a storm.	*Je crois que nous aurons de l'orage.*	Jeh croah keh nooz orong de lorahje.
Summer is over.	*Voilà l'été passé.*	Vwoila lettay passay.
The leaves are beginning to fall.	*Les feuilles commencent à tomber.*	Lay file commaunst a taumbay.
The days are still fine.	*Les jours sont encore fort beaux.*	Lay joor sont auncore fore bo.
We must soon begin fires.	*Il faudra que nous ayons du feu sous peu.*	Eel fodrah keh nooz ayong du feu soo peu.
We have had a fire already.	*Nous avons déjà fait du feu.*	Nooz avong dayjah fay du feu.
It is soon dark.	*Il fait bientôt nuit.*	Eel fay beeangto nwee.
It is a fine night.	*Il fait une belle nuit.*	Eel fait une bel nwee.
A dark night.	*Une nuit obscure.*	Une nwee obscure.
Is it moonlight?	*Fait-il clair de lune?*	Fait-eel clare deh lune.
Do you think it will rain?	*Croyez-vous qu'il pleuve?*	Crwoiyai-voo keel pleuv?
I am afraid so.	*J'en ai peur.*	Jon ai peur.
It rains.	*Il pleut.*	Eel pleu.
It drizzles.	*Il bruine.*	Eel brueene.
It pours.	*Il pleut à verse.*	Eel pleut a vairse.
It is very windy.	*Il fait bien du vent.*	Eel fay beeang du vong.
It is winter.	*Nous voilà dans l'hiver.*	Noo vwoila dong leevair.
It is very cold.	*Il fait excessivement froid.*	Eel fait excesseevmong frouah.
It is bad weather.	*Il fait mauvais temps.*	Eel fay movay tong.
Cloudy weather.	*Un temps gris.*	Ung tong gree.
It is foggy.	*Il fait du brouillard.*	Eel fay du brooillar.
The sky is overcast.	*Le ciel est pris de tous côtés.*	Leh seeyel ai pree deh too cotay.
It snows.	*Il neige.*	Eel naje.
It freezes.	*Il gèle.*	Eel jale.
Can you skate?	*Savez-vous patiner.*	Savay voo pateenay?
It thaws.	*Il dégèle.*	Eel daijale.
Christmas.	*Noel.*	Noel.
New Year's day.	*Le jour de l'an.*	Le joor deh long.
Light the fire.	*Allumez le feu.*	Allumay leh feu.
I am looking for the tongs.	*Je cherche les pincettes.*	Je shairshe lay pangset.
Are there any coals?	*Y-a-t-il du charbon?*	Ee at eel du sharbong.
Tell the servant to bring some.	*Dites à la servante d'en apporter.*	Deets ah lah sairvaun don opportay.

GENERAL CONVERSATION.

Can you read French?	*Pouvez-vous lire le francais?*	Poovay voo leer leh fraunsay?
You read very well.	*Vous lisez très-bien.*	Voo leesay tray beeang.
Do you speak French?	*Parlez-vous français?*	Parlay voo fraunsay?
I speak it a little.	*Je le parle un peu.*	Jeh leh parl ung peu.
I do not understand it.	*Je ne le comprends pas.*	Jeh neh leh comprong pah
How long have you learned?	*Depuis quand l'apprenez vous?*	Depwee kong lapprenay voo?
A short time only,	*Depuis peu de temps.*	Depwee peu deh tong.
You pronounce very well.	*Vous prononcez très bien.*	*Voos* pronongsay tray beeang.
You have a very good accent.	*Vous avez l'accent très-pur.*	Vooz avay lacsong tray pure.
Do you understand?	*Comprenez-vous?*	Comprenay voo?
It is no matter.	*Ce n'est rien.*	Snay reeang.
I am come to tell you.	*Je viens vous dire.*	Jeh veeang voo deer.
I don't think much of it.	*Je n'en fais pas grand cas.*	Jeh nong fay pah grong cah.
No sooner said than done.	*Aussitôt dit, aussitôt fait.*	Osseeto dee, osseeto fay.
I can bear it no longer.	*Je n'en puis plus.*	Jeh nong pwee plu.
She took it in bad part.	*Elle l'a pris en mauvaise part.*	El lah preez on movaze par.
I like being here.	*Je me plais ici.*	Jeh me plaze eessee.
I have been told.	*On m'a dit.*	Ong mah dee.
As much as I can.	*Autant qu'il est en moi.*	Otong keel ait ong mouah.
So much the more.	*A plus forte raison.*	Ah plu fort raisong.
I value it very much.	*J'y tiens beaucoup.*	Jee teeang bocoo.

Practical and Ornamental PENMANSHIP

OF the importance to all classes of a legible, easy and rapid handwriting, we scarcely need speak. No other one attainment assists an equal number of young ladies and gentlemen to positions of profit and advancement, or affords more satisfaction as an accomplishment; and we believe it to be an acquirement within the reach of all persons having common sense and one good hand.

It has been the determination of the publishers of this work to spare no pains or expense to place before the student the very best instruction and examples in every department of Penmanship. They accordingly employed Prof. D. T. Ames, of New York, the famed pen artist, and editor of the *Penman's Art Journal*, to prepare, specially for this work, the following pages of instruction and examples. It is their belief that the instruction embodies the best thought of the times, while the copies and specimens are certainly the product of the highest order of artistic skill.

All the copies and specimens have been photo-engraved directly from the original pen-and-ink copy, and therefore may be said to be actual pen-work, and not the result of the engraver's skill, as is generally the case with what has heretofore been presented to the public as reproductions of penmanship.

The learner will, therefore, know that the copies before him, having once been executed with a pen, may be exactly reproduced by the same simple process.

If, in some instances, the forms are less rigidly correct, or the lines less delicate than are fine plate engravings, we are fully convinced that the more easy, flowing and natural lines of the actual pen-work will more than compensate for such lack, if so it may be termed.

The publishers are confident that no equally practical and useful exposition of teaching and practicing the art of Penmanship has ever been presented to the public.

POSITIONS.

FIRST in importance to the pupil in writing is a CORRECT POSITION. As in logic an error in the premises must lead to false conclusions, so a bad position while learning to write must lead to failure. It is only when in a correct position that the pen, even in the hand of its skillful master, is capable of producing the smooth, graceful line, shade and curve so essential to good writing. If such is the fact when in a master's hand, how doubly so it is in the undisciplined and struggling hand of the learner!

It is also important that a proper position be maintained at the table or desk, as well as the relative positions of the pen, hand, paper, desk and body.

Each of three positions at the desk has more or less advocates, and each, in our opinion, is commendable, according to the circumstances of the writer. We give each position, with the reasons urged in their favor.



RIGHT POSITION.

RIGHT POSITION.—Turn the right side near to the desk, but not in contact with it. Keep the body erect, the feet level on the floor.. Place the right arm parallel to the edge of the desk, resting on the muscles just forward of the elbow, and rest the hand on the nails of the third and fourth fingers, not permitting the wrist to touch the paper. Let the hands be at right angles to each other, and rest on the book, keeping the book parallel to the side of the desk.

This position is advocated as furnishing the best support for the hand and arm while writing, and we think not without justice in school or class rooms, where the desk is often sloping and narrow.

FRONT POSITION.—In this, the same relative position of hand, pen and paper should be maintained as described in the former one. In commercial colleges and writing academies, where more spacious desks, or tables, are used than in the common school room, this position is permissible and is frequently adopted.



FRONT POSITION.

LEFT POSITION.—Without illustrating this position, we would say that the left side is presented to the desk, and the same relative positions maintained as in the right and front. This position is advocated on the ground of its relieving the right arm from being burdened with any support of the body while writing, and thus giving a more free, rapid and less tiresome action to the hand and arm. This argument has considerable force where the fore-arm or muscular movement is practiced.

It is also the most convenient, if not a necessity, in the counting-room, where numerous and large books are required to remain in a position at right angles with the desk, and also in the execution of large drawings or specimens of penmanship, which necessarily, or most conveniently, occupy positions directly in front of the artist.

RIGHT OBLIQUE POSITION.—Another position at the desk, sometimes advocated by authors and teachers, is the right oblique, which is a position between the front and side, as illustrated below.



RIGHT OBLIQUE POSITION.

In our opinion, the question which of these positions is to be adopted is not of such vital importance as that the proper relative position of pen, hand and paper should be maintained, and that the arm should be perfectly free from the weight of the body while writing.

POSITION OF PEN AND ARM.—Take the *pen* between the first and second fingers and thumb, letting it cross the forefinger just forward of the knuckle, and the second finger at the root of the nail, three-fourths of an inch from the pen's point. Bring the point squarely to the paper and let the tip of the holder point toward the right shoulder.

The *thumb* should be bent outward at the first joint, and touch the holder opposite the first joint of the forefinger.

The *first and second fingers* should touch each other as far as the first joint of the first finger; the *third and fourth* must be slightly curved and separate from the others at the middle joint, and rest upon the paper at the tips of the nails. The *wrist* must always be elevated a little above the desk. This position of the pen is undoubtedly the best for all writers using the finger movement, as it admits of the greatest freedom and facility of action of the fingers. But among writers using the muscular movement, where less depends upon the action of the fingers, it is common, and we think well, to allow the holder to

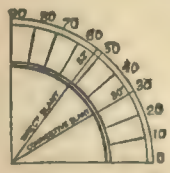
fall back and below the knuckle joint. It is more easily held, and, from its forming a more acute angle with the paper, moves more readily and smoothly over its surface.

Finger Movement is the combined action of the first and second fingers and thumb.

Fore-Arm Movement is the action of the fore-arm sliding the hand on the nails of the third and fourth fingers.

Combined Movement is that which is most used in *business penmanship.* It is a union of the fore-arm with the finger movement, and possesses great advantage over the other movements in the greater rapidity and ease with which it is employed.

Whole-Arm Movement is the action of the whole arm from the shoulder, with the elbow slightly raised, and the hand sliding on the nails of the third and fourth fingers, and is used with facility in striking capital letters and in off-hand flourishing.



SCALE OF SLANT.

Main Slant.—A straight line slanting to the right of the vertical, forming an angle of 52° with the horizontal, gives the *main slant* for all written letters.

Connective Slant.—Curves which connect straight lines in small letters, in a medium style of writing, are usually made on an angle of 30°. This is called the *connective slant.* See diagram.

Base Line.—The horizontal line on which the writing rests is called the *base line.*

Head Line.—The horizontal line to which the short letters extend is called the *head line.*

Top Line.—The horizontal line to which the loop and capital letters extend is called the *top line.*

A Space in Height is the height of small *i.*

A Space in Width is the width of small *u.*

The distance between the small letters is 1¼ spaces, measured at head line, except in the *a, d, g* and *q.* The top of the *pointed oval* in these letters should be two spaces to the right of a preceding letter.

Upper and Lower Turns.—In the analysis of small letters, short curves occur as connecting links between the principles. These curves we call *turns.* When one appears at the top of a letter, it is called an *upper turn;* when at the base, it is called a *lower turn.*

MOVEMENT EXERCISE.

All instruction in penmanship should be initiated with a liberal use of movement exercises, arranged and practiced with the view of facilitating upward and downward as well as lateral movement of the hand, and each and every lesson should be preceded by more or less practice upon movement exercises.

CARE IN PRACTICE.

In practicing upon movements and writing, it should be constantly borne in mind that it is not the amount of practice so much as the careful and thoughtful effort to acquire precision and certainty that determines the success of the writer.

It is often said that "practice makes perfect." This is true, if the term practice implies thoughtful, patient and persistent effort for improvement; otherwise it may be quite untrue.

Thoughtless scribbling tends rather to retard than to enhance the acquisition of good writing. Each time a copy has been carelessly repeated, incorrect or bad habits have been confirmed rather than corrected—a move backward instead of forward. This is a fact not sufficiently appreciated by teachers or pupils. Better far not to practice than to do so carelessly; one might as well seek to win a race by occasionally taking a turn in the opposite direction.

Good or well-constructed writing is no more essential than that it should be executed with facility and ease; yet we would have no learner fall into the mistaken idea that he is to give special attention to speed before having acquired by deliberate study and practice correct forms and proportions in writing. First accuracy, then speed. Rapid and thoughtless practice is worse than useless. The mind must be educated before the hand. The hand and pen are only the servants of the mind, and as such can never surpass the mind's conception and power to guide and direct in any performance.

If upon the tablets of the mind there is presented constantly to our mental vision a perfect copy of the letters and their varied combinations into graceful writing, the hand will strike for the single and definite purpose of reproducing the same, and will progress steadily to the attainment of skill requisite for the reproduction of the most perfect conceptions of the mind: The hand of the greatest sculptor or artist has no cunning not imparted by a skillful brain. Michael Angelo was the chief of artists, because of his superior mental conception of art, and may we not suppose that the untouched canvas presented to his mental vision all the grandeur and beauty in design and finish that delighted the eye of the beholder when finished into the most exquisite painting? The hand can never excel the conception of the mind that educates and directs its action. If Spencer or Flickinger excel others in the perfection and beauty of penmanship, is it not because of their superior conception of that in which superior penmanship consists? The student who would have success must see that his practice is preceded by and always attended with thoughtful study and criticism.



POSITION OF PEN AND ARM.

After having once written the copy, study and criticise your effort before the next trial. Your faults noted, and a thought as to how they may be best corrected will enable you to make an intelligent and successful effort for improvement. Remember that unknown faults can never be avoided or corrected. First

study to discover, and then to mend. Short exercises or copies, if rightly practiced, are much more favorable for improvement than long ones, inasmuch as they are repeated at intervals so short as to keep faults and criticisms fresh in mind, while oft-repeated efforts for correction will be correspondingly effective. Faults observed by ourselves or pointed out by others at the beginning of a long copy are very likely to be out of mind before that portion of the copy in which they occur is repeated.

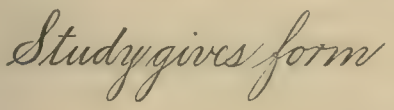
WRITING NOT A SPECIAL GIFT.

It is often said that good writing is a "special gift." This idea is not only fallacious, but is exceedingly pernicious as regards the acquisition of good writing, inasmuch as it tends to discourage pupils who write badly, by leading them to believe that, not having "the gift," they are debarred from becoming good writers.

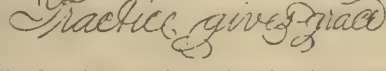
Good writing is no more a gift than is good reading, spelling, grammar, or any other attainment, and in the same way it is and *can* be acquired, viz., by patient and studious effort.

The correct form and construction of writing must be learned by study, while practice must give the manual dexterity for its easy and graceful execution. Many persons fail to become good writers from not properly uniting study and practice. Careful study with too little practice will give writing comparatively accurate in its form and manner of construction, but labored, stiff and awkward in its execution; while, upon the other hand, much practice with little study imparts a more easy and flowing style, but with much less accuracy, as regards the forms of letters and general proportion and construction of the writing, which will commonly have a loose and sprawly appearance.

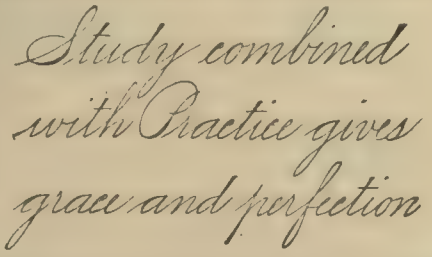
Example of writing which has resulted more from study than practice:



Example of writing in which there has been more practice than study:



The result of study properly combined with practice:



Undoubtedly, many of our readers will see forcibly illustrated in one of these examples their own experience. So manifest is the effect of these different modes of practice that we have only to glance at a piece of writing to discern the extent to which a writer has combined study with practice while learning to write.

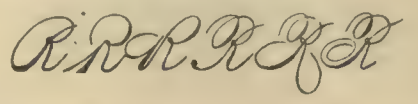
UNITY AND SIMPLICITY OF FORM.

It is an old but true saying that "a jack of all trades is master of none." This is so from the fact that, working at many things, neither the hand nor brain can attain to a high order of proficiency or skill. It is the specialist that advances the standard of progress in all the directions of human discovery. Concentration of thought and action makes the great masters of the world, while by a diffusion of the same the greatest genius is dissipated and fails to attain to a marked degree of eminence.

So, in learning to write, the pupil who vacillates between many systems and multitudinous forms of letters must inevitably fail of becoming an expert and skilful writer.

It is a matter of frequent observation that persons learning or practicing writing vacillate between from two to six different forms of the capitals, and as many as are possible in the small letters, apparently in the belief that variety is the chief element of good writing, which is a double mistake, as it detracts from the good appearance of the writing at the same time that it enhances the difficulty of learning and of executing it.

For example, we have known writers who, in executing a short piece of writing, would for many of the letters make use of forms as varied and numerous as follows:



and use more or less variety in all of the letters, thus requiring study and practice upon *about one hundred* different and unnecessarily complicated forms for the alphabet, in place of twenty-six. Thus the labor and uncertainty of becoming a skillful writer is magnified fourfold. A single and simple form for each letter, capital and small, should be adopted, and, with a few exceptions, which we shall hereafter explain, should be invariably practiced. The frequent and uniform repetition will impart that accuracy of form, grace and facility of execution which constitute good writing.

The simple forms are not only more easily acquired and more rapidly executed, but they are more easily read than the more ornate styles; in fact, those forms that cost the most are worth the least. It is as if a merchant should constantly purchase an inferior class of merchandise and pay the high price of the best; his chances for success certainly would not be very promising.

ECONOMY OF FORM.

Labor, whether of the clerk or mechanic, is rewarded according to the results it can produce.

The copyist or clerk who can write one hundred words equally as well in the same time that another writes fifty will certainly, other things being equal, command twice as much pay. The rapidity with which writing can be executed depends largely upon the simplicity of the forms of letters used and the size of the writing. A medium or small hand is written with much more ease and rapidity than a large hand, from the fact that the pen can be carried over short spaces in less time and with greater ease than over long ones, and can execute simple

forms more easily and rapidly than complicated ones. To illustrate: Suppose one writer were to habitually make the capital *R* thus:



Which requires eleven motions of the hand to execute; and that another were to uniformly make it thus:

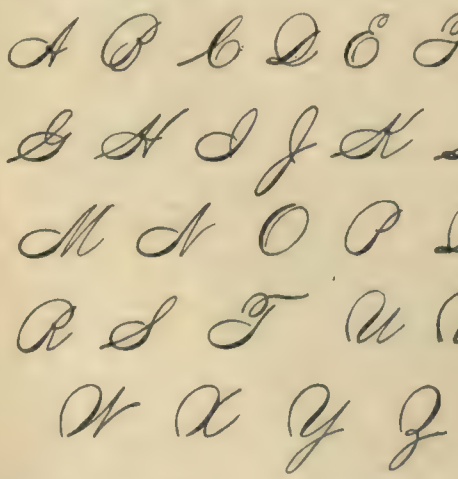


Requiring only four motions of the hand. It is apparent that the difference of time required to make each cannot be less than the proportion of eleven to four. That is not all. The complicated form consists of many lines, some of which are required to run parallel to each other, and all made with reference to balancing or harmonizing with some other line, and requires to be made with much greater care and skill than the more simple form, so that the disadvantage is even greater than indicated by the simple proportion between eleven and four.

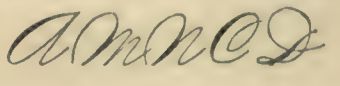
The practice of these complex forms of the alphabet will be fatal to rapid and legible business writing.

These remarks are intended to apply more especially to business and unprofessional writing. Where show and beauty are of greater consideration than dispatch, variety and complexity of forms are quite proper, and even necessary.

We give here the entire alphabet of capitals such as we would recommend for all business purposes, as combining simplicity of form and ease of construction:

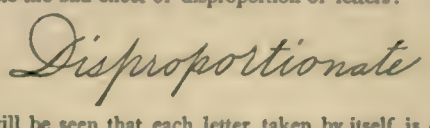


We would add as not objectionable the following:



CORRECT PROPORTION ESSENTIAL TO GOOD WRITING.

One might be able to execute faultlessly each single letter of the alphabet, and yet be a most miserable writer. Writing, to be really good, must be harmonious in all its parts; letters must be proportionate to each other, properly connected, spaced, have a uniform slope and degree of pen-pressure, etc., as well as an easy and graceful movement. The following example will illustrate the bad effect of disproportion of letters:



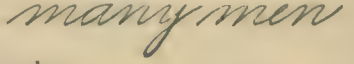
It will be seen that each letter, taken by itself, is creditably accurate in form, and yet, when associated with each other in a word, they present an appearance as ungainly as would an ox yoked with an elephant. We have often seen writing in which the letters were really badly formed, yet so harmonious in their combinations, and easy in their construction, as to present an attractive, not to say an elegant, effect; while, upon the other hand, we have often seen writing in which the letters were well formed, and yet so awkward in their combinations, and labored in their execution, as to be really painful to the sight of persons having a refined and correct taste regarding writing.

CORRECT AND INCORRECT SPACING.

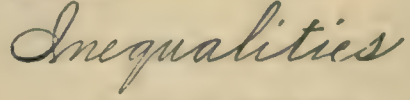
Another important factor of good writing is the proper spacing and connecting of letters and words. Upon these very much depends, as in many instances the connecting lines alone impart the distinctive character to letters.

In determining the proper spacing of writing, the distance between the straight lines of the small *u* may be taken as a space in width. The distance between the parts of letters having more than one downward stroke should be one space; between the letters one and one-fourth spaces, measured at the head line, except *a*, *d*, *g* and *q*, which should occupy two spaces, measuring from the preceding letter to the point of the ovals; between words there should be two spaces.

Example of correct spacing:



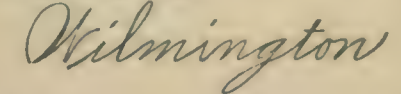
Incorrect spacing:



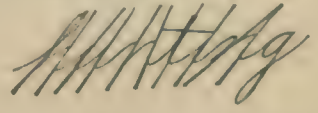
SLANT OF WRITING.

The degree of slant now adopted by the leading authors, and one which we approve, is at an angle of 52° from the horizontal, as per diagram in a preceding column.

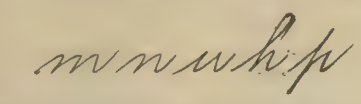
The relative effects of incorrect and correct slope may be seen in the following examples:



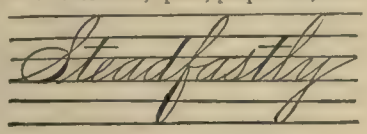
The variation in the slope of different letters and their parts will be rendered much more perceptible by drawing straight extended lines through their parts, thus:



One of the most common faults in slope occurs on the last part of letters *m*, *n*, *u*, *h* and *p*, which are made thus:



Example of correct slant, space, proportion, etc.:



SIZE OF WRITING.

In its practical application to the affairs of life, writing must be greatly varied in its size, according to place and purpose.

It would be obviously bad taste to use the same size and style of writing for the headings of a ledger and other books of account or record that would be employed on the body of a page. In the address of a letter and superscription upon the envelope much greater license, as regards size and style, may be taken than in the body of the writing. Nor is it practical at all times to maintain a uniform size for body writing. It may, with propriety, be written larger upon wide than narrow-ruled paper. Care should always be taken to gauge the size of the writing according to the space in and the purpose for which it is to be written. This should be done by varying the scale rather than the proportions of the writing. When writing upon ruled paper we should always imagine the space between the lines to be divided into four equal spaces, three of which may be occupied by the writing; the fourth must not be touched, save by the downward extended letters from the line above. This open space between the lines separates them, and enables the eye more readily to follow and distinguish between the lines when reading. A small or medium hand is the best, both as regards the readiness with which it is read and the ease and rapidity of its execution.

In a large hand, the writing is apt to be more or less intermingled and confused, the loops of one line often cutting into and obscuring the writing upon other lines, while the more extended sweeps of the pen in the large writing are proportionately slow and tedious.

For legibility, ease and rapidity of execution, small, unshaded writing is decidedly the best.

HOW TO LEARN AND TEACH WRITING.

CONSPICUOUS FAULTS.

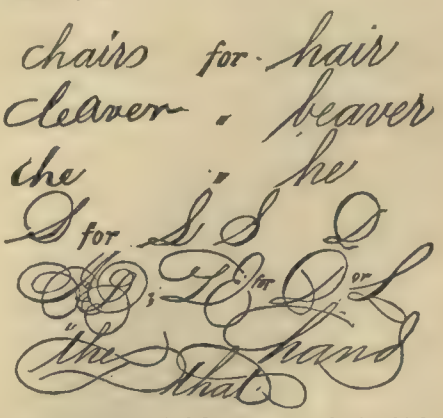
To note and indicate all the faults liable to occur in writing, or to prescribe a cure-all remedy, is more than we presume to undertake. They are as numerous and varied as are the circumstances, habits, tastes and accomplishments of the writers; but it is quite safe to say that a very large proportion of all the "unpleasantness" in writing comes from sheer carelessness on the part of the writers, which is manifest in the awkward, nondescript or uncertain forms which are employed—forms often most easy and graceful, but which, taken separately, represent no intelligible character, and, apart from the context, are liable to be mistaken for any one of the several letters that are similar in their construction. This fault is specially grievous where it occurs in an initial letter, in short names, abbreviations and cipher writing, as in such cases the context furnishes the reader little or no aid.

Another prolific source of annoyance, and not unfrequently illegibility, arises from the inexcusable use of flourishes and superfluous lines. We say *inexcusable*, because, at best, they mix and confuse the writing, and, when hurriedly and carelessly made, they frequently take forms which are liable to be mistaken by the reader for letters or parts of letters, and thereby puzzle and annoy, if not entirely change the intent of the writer. Another frequent fault is the personal eccentricity which leads writers to adopt, as *their style*, forms for letters, and especially capitals and in autographs, which are entirely outside the pale of any known system of writing, and whose identity can only be guessed at by those unfamiliar with the peculiarity.

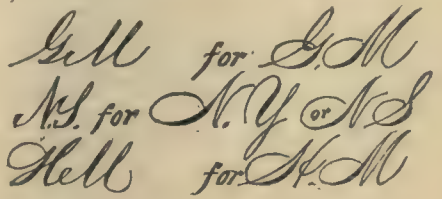
While, as we have stated, it is quite impossible to name all the sources of bad writing, or to formulate rules for its prevention or correction, we do believe that there are many of the most common faults—among which are those enumerated above—that with a little thought and care may be avoided.

To aid the student, as far as possible by negative instruction, to avoid some of the more common and inexcusable faults, we have formulated a few rules, with examples illustrative, which we here present.

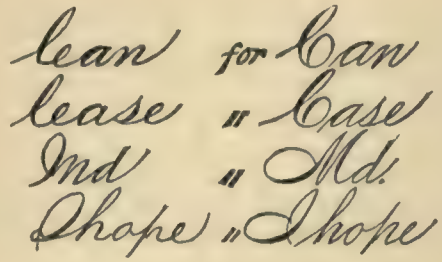
Rule First.—All unnecessary, superfluous or flourished lines must be omitted; as:



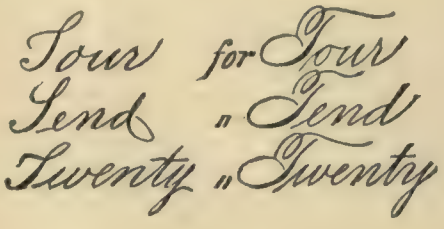
Rule Second.—No capital letters or words should be joined together; as:



Rule Third.—Capital letters should not be joined to the smaller letters; as:

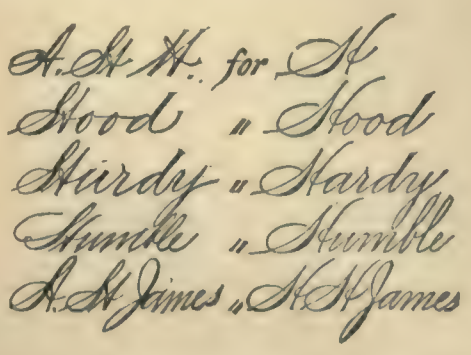


Rule Four.—The capital *T* should never be looped at the top; as:

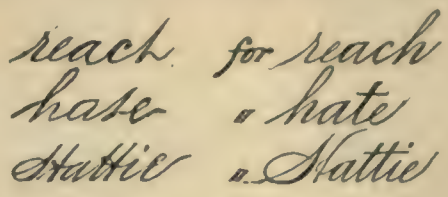


Several expensive litigations have grown out of the delivery of messages having the latter combination, as Seventy when it was written for Twenty, or *vice versa*, by the sender of the dispatch. We are not informed respecting the precise circumstances of any of the cases, but, supposing the error to have been in orders to buy twenty thousand bushels of grain, shares of stock, or other thing of similar value, the consequence might have been serious.

Rule Five.—A capital *H* should never be so made as to be mistaken for an *A* or other combination; as:



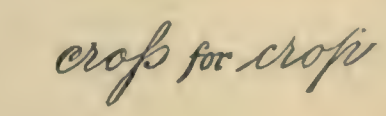
Rule Six.—Cross all *t*'s with a single horizontal line at the top.



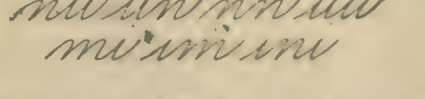
A telegraph dispatch addressed as above was taken down and sent to Ha-Hi-E, who was not known at the street and number to which it was directed, and it was consequently returned; and when the error was discovered, and traced to the operator who made it, he was asked how he came to make such a mistake, and whom he supposed Ha-Hi-E to be. The operator replied, "Some Indian Chief or Chinese"—a very natural supposition in such a city of all peoples as is New York.

Rule Seven.—The capital *I* should always be made above the line, while the *J* should extend below. Otherwise, when used as initials or in cipher-writing, they cannot be distinguished with certainty.

Rule Eight.—The small *s* should never be made with the loop below the line, as it is liable to be mistaken for a *p* or *f*; as:

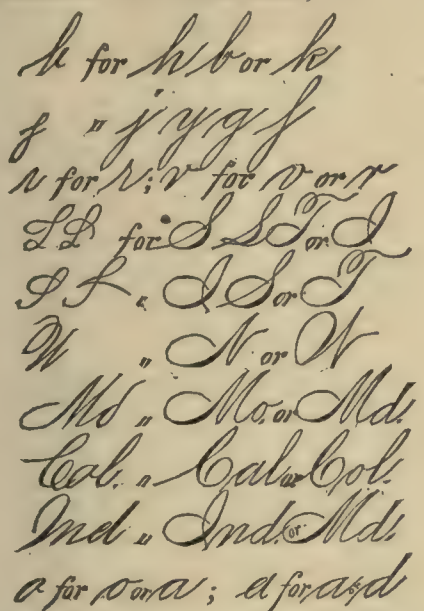


Rule Nine.—Letters should be connected in their parts, and with other letters, by the proper and characteristic curved or straight lines. It is a common and grievous fault in writing that a straight line or the wrong curve is employed in the construction and connection of letters, thus leaving them without distinctive character, or imparting one which is false and misleading. For instance, a form made thus  may be taken for an  , a  , and, possibly, for a  . In cases where the context does not determine, its identity becomes a mere matter of guess, and when extended thus  its significance, as will be seen, is still more vague and uncertain, as it might be intended for either of the following seven combinations:

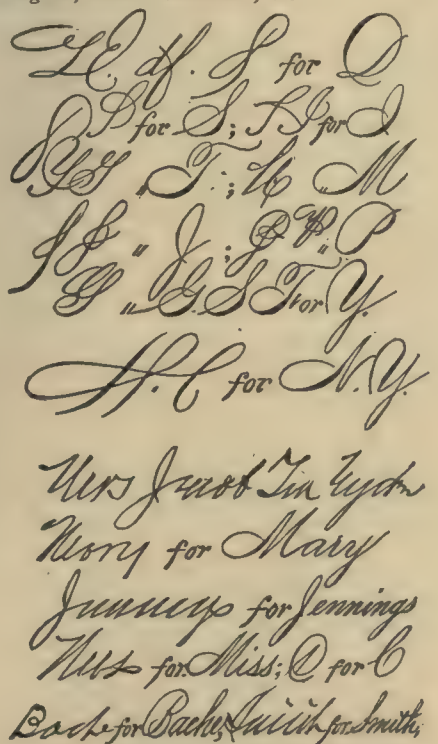


With a properly trained hand no more time or effort is required to impart the true and unmistakable characteristics to each letter than to make forms whose identity is open to doubt and conjecture.

Rule Ten.—No letter should have a doubtful form, such as may be mistaken for one of several letters; as:

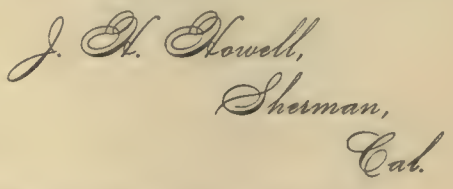


Rule Eleven.—All eccentric forms and conspicuous personal oddities, which so often render writing, and especially autographs, illegible, should be avoided; as:

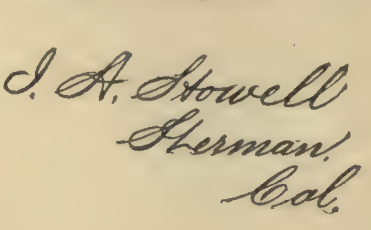


This example was used as an initial letter in a communication recently received. In addressing the author we could only do as we are often obliged to do with doubtful initials—make a *fac-simile*, and leave it to the postmaster to decipher at the office of delivery. Writers should remember that short names and initial letters, when carelessly written, are very liable to be misread, from the fact that no aid can be derived from the context.

A large proportion of letters which miscarry through the mails do so from the careless manner in which they are superscribed. As an example, let us suppose that a writer desires to address an important communication to



but he hurriedly and carelessly superscribes it thus:



The abbreviation for the name of the State (*Cal.*) is so indefinite that the letter goes first to Colorado, but, there being no Herman or Sherman in that State, it is finally re-directed to Herman, *Cal.* The initial *S* and following letter *h* being of so indefinite and doubtful a character, they together were naturally mistaken for an *H*, but, there being no Herman post-office in California, the mistake is finally discovered by a distributing agent, and the letter is again re-directed to Sherman, Cal.; here the *H* in Howell is read *St*, and accordingly the letter is placed in *S* box for general delivery; not being called for, it is at length advertised in the list of undelivered letters, thus: *I. A. Stowell.* The *J*, having been made above the line, is mistaken for an *I*, while the initial *H* is so nearly closed at the top that it is mistaken for an *A*. After being duly advertised, the letter is sent to the Dead Letter Office at Washington, and from there returned, after several weeks, to the writer. J. H. Howell, in the meantime, has enquired daily for letters at the Sherman post-office, when the delivery clerk has looked in the *H* box and answered, "Nothing." Mr. Howell has also carefully scanned every list of advertised letters, but never could he have imagined that the letter advertised for I. A. Stowell was the one he had so long and anxiously looked for.

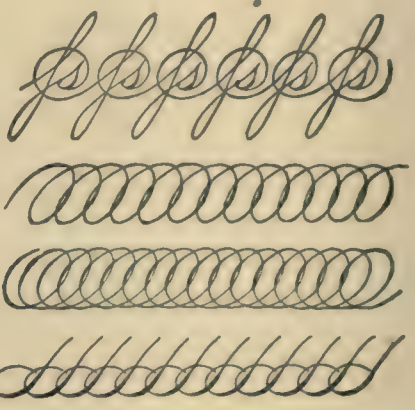
It is just such errors as those above described that cause a large percentage of the miscarriages of mail matter.

Movement Exercises.

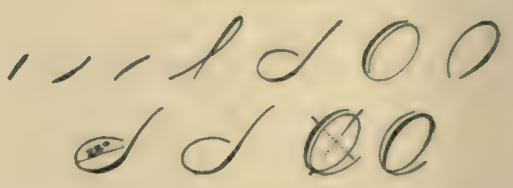
Much patience should be devoted by the learner to practice upon movement exercises, for the purpose of disciplining and bringing under perfect control the motions of the hand and arm.

The following will serve a good purpose, and, with the copies following, will be a guide to a course of twenty lessons, with or without the aid of a teacher:

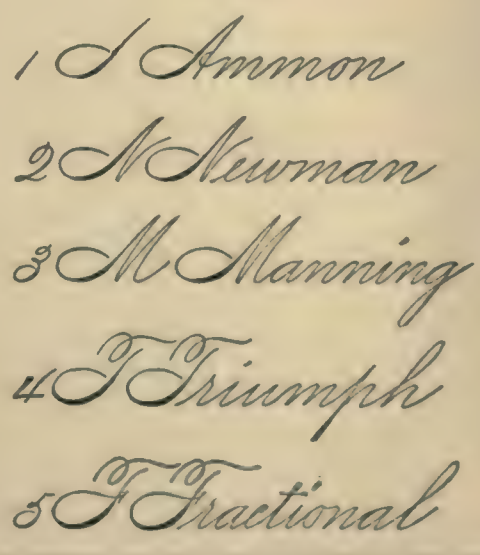




PRINCIPLES



COPIES.



6 G Grammar

7 S Sojourning

8 L Lawrence

9 H Hamilton

10 K Kingston

11 P Bannister

12 R Raymond

13 I Improving

14 J Jefferson

15 O Obliquity

16 C Exchange

17 Dixon Quiz

18 V U Yours

19 W X Zone

20 & & Co $ %

1 I Aim to reach perfection. I

2 Benevolence is commendable. B

3 Command all excellence. Come

4 Diligence will win success. D

5 Emulate all that is good. End.

6 Fortune favors the brave. Fine.

7 Generosity will be rewarded. G

8 Honesty is the best policy. Iris.

9 Justice wrongs no man. James.

10 Knowledge is power. Lamartine.

11 Much pains much skill. Man.

12 New brooms sweep clean. Nine.

13 Opinions are opinions still. On.

14 Practice is the way to perfection

15 Quit evil associates. Q. Razors.

16 Save lest you want. Turning.

17 Union gives strength. Venezuela.

18 Write with great care. Xerxes

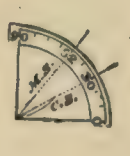
19 Youth is the time to learn. Y

20 Zones are five in number.

Penmanship.

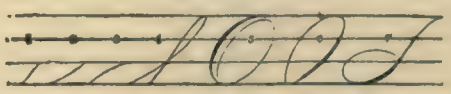
Penmanship Department.



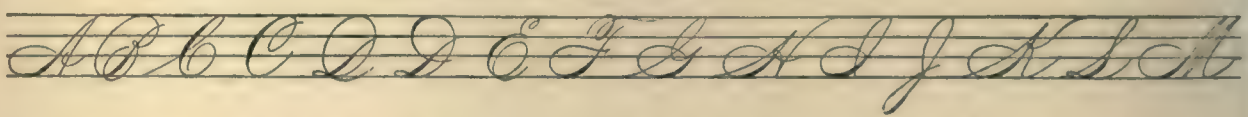
SCALE OF  SLANT.

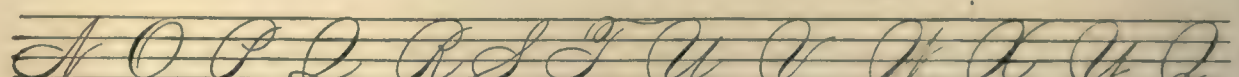


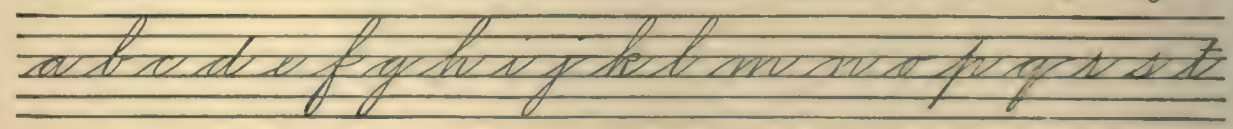
PRINCIPLES.

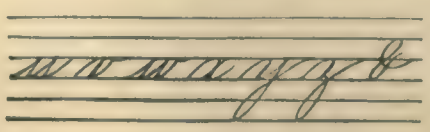


SCALE OF PROPORTIONS OF LETTERS.









STANDARD ALPHABETS.

A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z.

1 2 3 4 5 6 7 8 9 0.

ABBREVIATED CAPITALS FOR BUSINESS.

A A B C D E F G H K I J K L M M
N O P Q R S T U V W X Y 3

EXTENDED LETTERS FOR LADIES' EPISTOLARY WRITING.

A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z

Writing for Business should be constructed in the plainest manner possible. It should be written with a free rapid movement of medium size, with little shade and no flourishes.

Writing for Correspondence should be very plain, below medium in size, and be written in a light free running style.

Ambidextrous Brilliant Compton Dillingham Eminence
Gillman Hampton Indolent Jamison Kinsman Lawns

Maxims Noonday Omission Penmanship Quartz Rolling
Saxony Triumph Unionville Visions Wood Xenia York Zone

Due A. H. Kinman or order on demand for value received
Five Hundred Sixty Eight and 50/100 Dollars.

$2295 00/100. New York. October 15, 1883.

At three days sight pay to Charles Rollinson or order Twenty Two Hundred and Ninety five Dollars value received.

R. S. Peale & Co.
St. Louis Mo.

George J. Ames

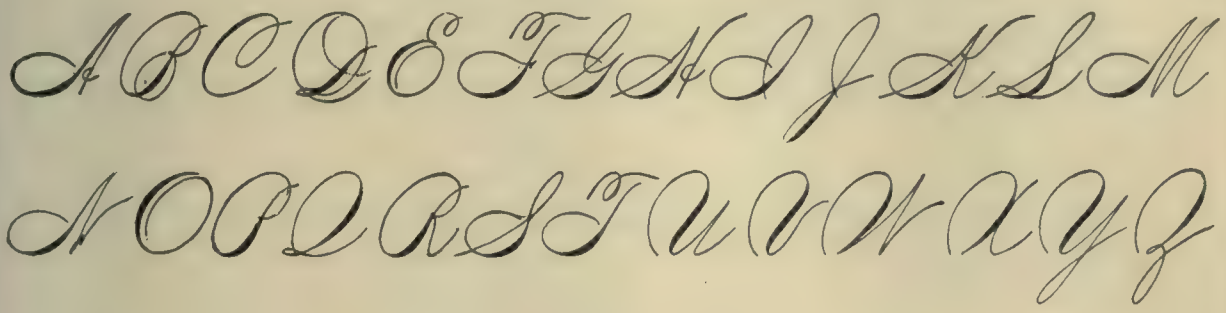
$1750 00/100 Chicago. September 20, 1883.

Six months after date I promise to pay Benj. F. Killey or order One Thousand Seven Hundred and Fifty Dollars value received.

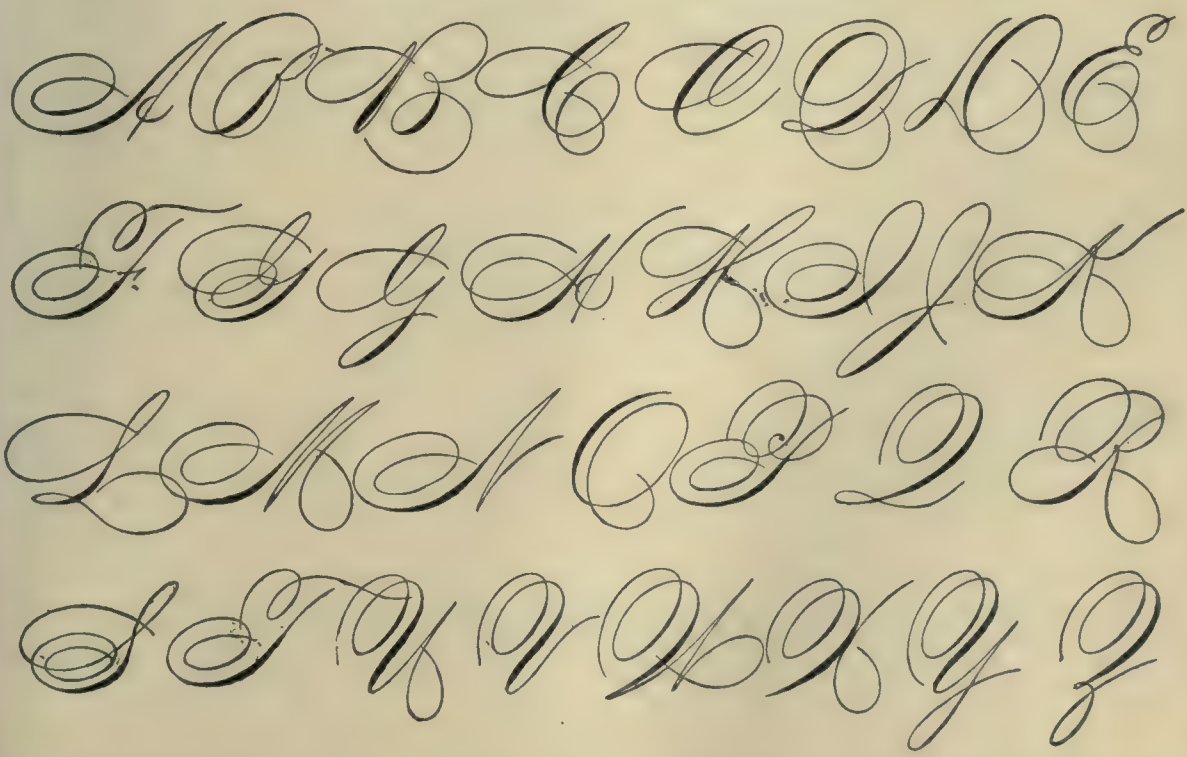
Joel H. Barlow.

Whole Arm Capitals may be used for Superscriptions Ledger Headings and Professional Penmanship where license and display are permissible, if not desirable.

WHOLE-ARM CAPITALS.—PLAIN.



WHOLE-ARM CAPITALS.—FLOURISHED.



$91.— Cincinnati, Oct. 19, 1879.

Ninety days after date I promise to pay William Duncan, or order, Ninety-one Dollars. (Value received.

D. W. Fremont.

ROUND WRITING FOR HEADINGS.

Practical Penmanship.

Dr. Bills Receivable. & Co.

Bills Payable. New York.

Merchandise Commission

Waiting School. Cash Cr.

296 Broadway New York
August 10 1883

Mr Samuel C Woodford
St Louis Mo

Dear Sir

I am informed that Mr Edward J Cummins was lately and for some years in your employ

Would you kindly and (confidentially) favour me with such information as you can respecting him stating in what capacity he was in your service and your estimation of his general character and capability as a business man and also please inform me respecting his social standing during the period he was in your employ or of your acquaintance.

Hoping an early response I am

Yours Respectfully

William M Leonard

429 Market St. St. Louis, Mo.
August 15, 1883.

Mr. William M. Leonard,
New York City.

Dear Sir:

In response to yours of the 10th instant making inquiries respecting Mr. E. J. Cummins, I would say that he was in my employ nearly nine years. During the first two years as corresponding clerk, the remaining years he was my general manager and purchasing agent. Our business relations terminated last January on account of the sale of my entire establishment and my retiring from business. I regard Mr. Cummins as a very trustworthy and capable business man and possessed of excellent social qualities. During my acquaintance his social standing has been enviable.

Yours Respectfully
Samuel C. Woodford.

Artistic Penmanship.

PEN embellishment is one of the oldest and most useful of the arts. In ancient times, before the discovery of the art of printing, the pen was not only the sole recording agent, save the chisel, but the chief implement of art. All manuscript books were the tedious productions of the pen. These were often elaborately embellished with ornate lettering and various styles of ornament. The more ancient styles of ornamentation were of the scroll and grotesque order, Mythical figures of gods, dragons, genii and all manner of imaginary forms figured conspicuously in ornamentation. Later, beginning with about the sixteenth century, in nearly all of the French, English and American published works upon penmanship, off-hand flourishing was the predominant mode of pen embellishment, which appeared in all manner of forms, from a simple sweep of the pen to elaborate designs representing birds, beasts, dragons, fishes and all manner of fanciful designs. This order of embellishment, although greatly modified from the masters of a few centuries ago, is still a conspicuous element in the penman's as well as the engraver's art, and is, therefore, entitled to consideration in any work of the present time devoted to artistic penmanship. The art of flourishing is not only desirable as an accomplishment to the pen artist, but its practice tends to discipline the hand and eye, so as to impart greater ease and dexterity in the execution of practical writing.

Recently, through the introduction of the various photographic processes for transferring and printing pen drawings, new demands have been made upon the penman's art. The pen artist is now called upon to execute all manner of designs which have hitherto been strictly within the province of the engraver, and such designs must be produced not only with a degree of care and perfection, but in a style to meet and rival the various classes of engraving with which they must compete.

Through this exacting demand, the styles of lettering and ornamentation which were formerly known and recognized as essentially the penman's art require modification and adaptation to these new purposes. Flourishing is now less abundant and conspicuous; in its place are various other species of ornamentation, such as floral, scroll, panel and tint work. Examples of these several styles of ornamentation, illustrative of their proper application in artistic pen work, will appear upon the following pages.

It has been the earnest endeavor of the author to present the best forms for standard and ornate lettering, together with designs covering the entire range of the penman's art.

THE DESIGN AND EXECUTION OF PEN-WORK.

WHATEVER the purpose of any work, much of its success depends upon the skill and artistic effect of the design; hence extreme care and thought should be exercised in this respect. No amount of work,

however carefully and skilfully performed, can produce a good or satisfactory result from a design awkward or inappropriate.

After selecting the paper or material upon which the work is to be executed, fasten it with thumb-tacks or glue to a drawing-board; draw with a pencil border and centre lines; then sketch lightly with a pencil the design, having care to give due prominence to the several parts according to their importance in the work, with a proper intermingling of light and shade.

When designs are to be copied, there are numerous methods for making transfers. The most common is by means of thin, transparent paper or cloth, which is placed over the design to be copied, and the outline traced over with a pencil, after which the opposite side of the tracing is penciled over with a soft, black pencil; then place the tracing upon the paper on which the copy is to be made, when the lines upon the tracing are retraced with a pencil or any smooth-pointed instrument which will give a distinct outline upon the paper underneath.

Transfer or blackened paper is often placed under the tracing before retracing it, instead of pencilling its reverse side, which is objectionable from the liability of blackening or soiling the paper upon which the drawing is to be made; and then the transfer lines thus made are not easily removed with a rubber.

Of course this method of transfer can be used only where the desired reproduction is the same size as the original. If it is to be enlarged or diminished, other methods must be sought. This may be accomplished by marking the copy to be transferred into squares, and the paper upon which the reproduction is to be made into corresponding squares, enlarged or diminished according to the change desired from the size of the original copy. The same change is accomplished very readily by the use of proportional dividers, with which every draftsman should be provided, or by the use of the pantograph.

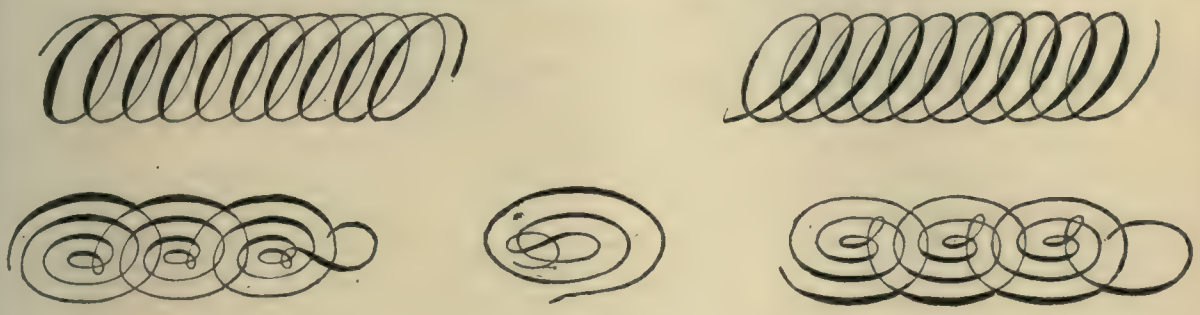
MATERIALS ADAPTED TO ARTISTIC PEN-WORK.

Use a fine quality of Bristol board or Whatman's hot-pressed drawing-paper, and a fine quality of *black* India-ink, freshly ground from a stick, in a tray containing rain-water. Ink of any desired shade may thus be made. If work is intended for reproduction by any of the photographic processes, the ink must be ground until jet black, and then the pencil guide-lines must be removed with a soft gum or sponge rubber, so as to remove as little of the ink as possible. Hard rubber will not only remove much of the ink, but will tear up the fibre of the paper, and thus break or make ragged the delicate hair-lines, which will therefore fail of a good result when photo-engraved. It should be specially noted that all lines to reproduce must be clear, smooth, continuous and black; if so, no matter how fine, they will answer the purpose. Copy should also be made at least twice the dimensions of the desired reproduction.

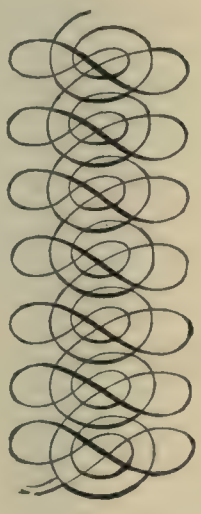
PENS.

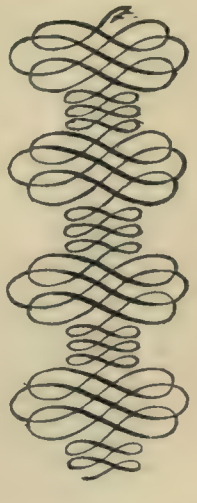
For script writing, use Gillott's "303" or Spencerian Artistic No. 14. For fine drawing or tinting, use the "303" or Crow Quill. For flourishing, use Spencerian No. 1 or Ames' Penman's Favorite. For lettering, especially Old English, German and Church Text, the Sonnecken pen, both broad and double-pointed, may be used to advantage.


EXERCISES FOR
FLOURISHING.



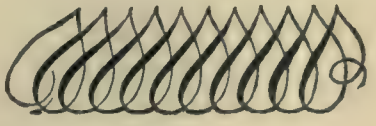


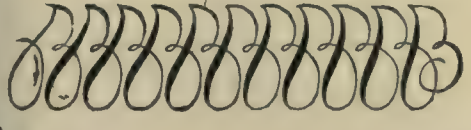


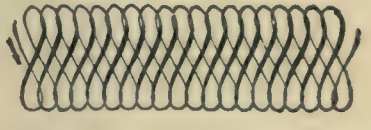




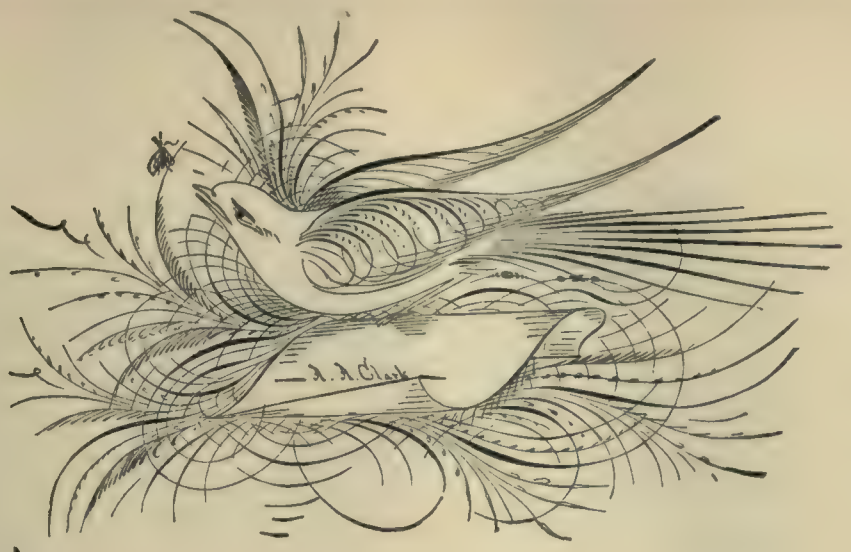












Advance






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TOIL


EXCELSIOR


Resolved,
That
Friends
Practical
and Artistic
Penmanship,
as
taught and practiced by
Committee.

Specimens for Blackboard Writing and Drawing



Swift as the flight through swift as eagles wings
The fox pursuits and the bold figure springs
While the slow pursuits discontinued pace
Repeats the stroke but cannot reach the place



Old English.

ABCDEFGHIJKLM
NOPQRSTUVWXYZ.
abcdefghijklmnopqrstuvwxyz.

German Text.

Aa Bb Cc Dd Ee Ff Gg Hh
Ii Jj Kk Ll Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv Ww Xx Yy Zz

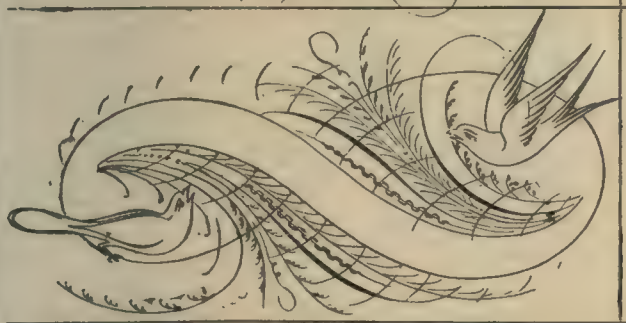
Church Text.

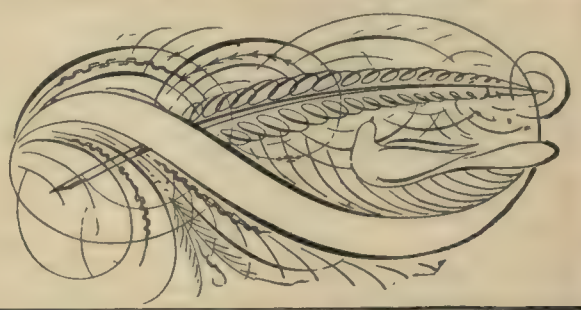
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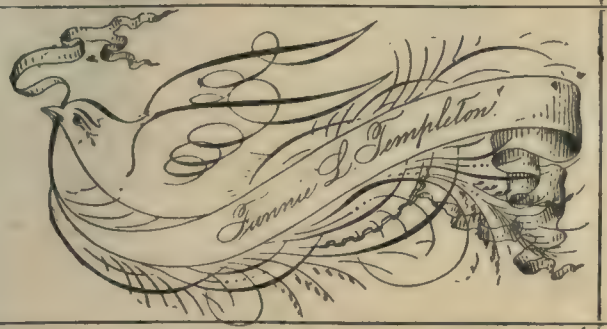
Designs for Flourished Cards and Albums.


















A B C D
E H G K
J I K L
M N O


ARTISTIC

SHORT-HAND AND TYPE-WRITING.

How to Acquire and How to Practice these Arts.

SHORT-HAND is the general term applied to all styles of brief or rapid writing, as distinguished from the ordinary writing, or long-hand. Numerous systems of abbreviated writing under various names, the principal of which were "Short-hand" and "Stenography," have been used and recommended by prominent men from the times of Socrates and Cicero down to the present day. It is commonly conceded that we are indebted for the first system of short-hand which has been preserved to the invention of Tiro, a freedman of Cicero, in the year 65 B.C., although it is recorded that Xenophon, the Greek philosopher and historian, used abbreviated characters for noting down the sayings of Socrates, and that these characters were adopted by the Romans and reduced by Ennius to a methodical scheme, about 150 B.C. Herodotus also informs us that traces of abbreviated writing were found among the Persians 480 B.C., at the time of the expedition of Xerxes into Greece. The Tironian characters were used for the preservation of speeches as delivered in the Roman Senate. Plutarch says that the oration of young Cato of Utica, delivered in the Roman Senate on December 5th, 63 B.C., was reported at Cicero's request. In the year 52 B.C., professional short-hand writers in Rome are mentioned for the first time.

Besides the use of short-hand by Tiro and his pupils in the Roman Senate, Cicero was accompanied by Tiro, as short-hand writer, in many of his travels, and many of his letters were written from dictation. Pliny is represented as never being abroad without a short-hand writer at his elbow; and St. Paul dictated to Tychicus, his amanuensis, some of his epistles. Under the Emperor Constantine, imperial or official reporters were among the court attachés. Mention is also made of them in other courts, and references to the quality of their work and the incidents connected with it, such as severe punishments for betrayal of professional secrets, and misreporting. All the facts collected from history clearly indicate the practical uses of short-hand as at the present time. From the verses of the Latin poet Ausonius, written about the year 380, we learn something of the manner of writing, in the following words: "Fly, young and famous reporter; prepare the tablets on which you express, with small dots, whole speeches as rapidly as others would trace one single word."

These early characters were called *notæ non literæ*, and the short-hand writers were called *notarii*. They were a numerous and respectable profession, including many of the well known names of history, such as Cicero, Augustus, Vespasian, Julius Cæsar and Cassienus.

Tracing short-hand from these earliest times, we find it under the titles of Brachygraphy, Characterie, Tachygraphy, Semigraphy, Criptography, Bodiography, Zeiglography, Polygraphy, Zeitography,

Radiography, Thoögraphy and Stenography. The last name is still applied to nearly all systems of short-hand writing in use on the continent of Europe.

By a careful study of the history and characters of the systems of short-hand, we find that they were based upon the common spelling, or ordinary alphabet, following the A B C order, until 1837, when Isaac Pitman, of Bath, England, invented a system of sound-writing based upon an analysis and philosophical arrangement of the different sounds of the English language, and in the year 1840 issued a small sheet entitled "Phonography; or, Writing by Sound: a New and Natural System of Short-hand," which sold for a penny a copy.

One of these original sheets is in the possession of Brown & Holland, of Chicago, who have had photographic copies made of it. The system of Isaac Pitman has passed through many editions, undergone frequent changes and improvements, and is now used more than any other system in England, although several others have been invented and published there.

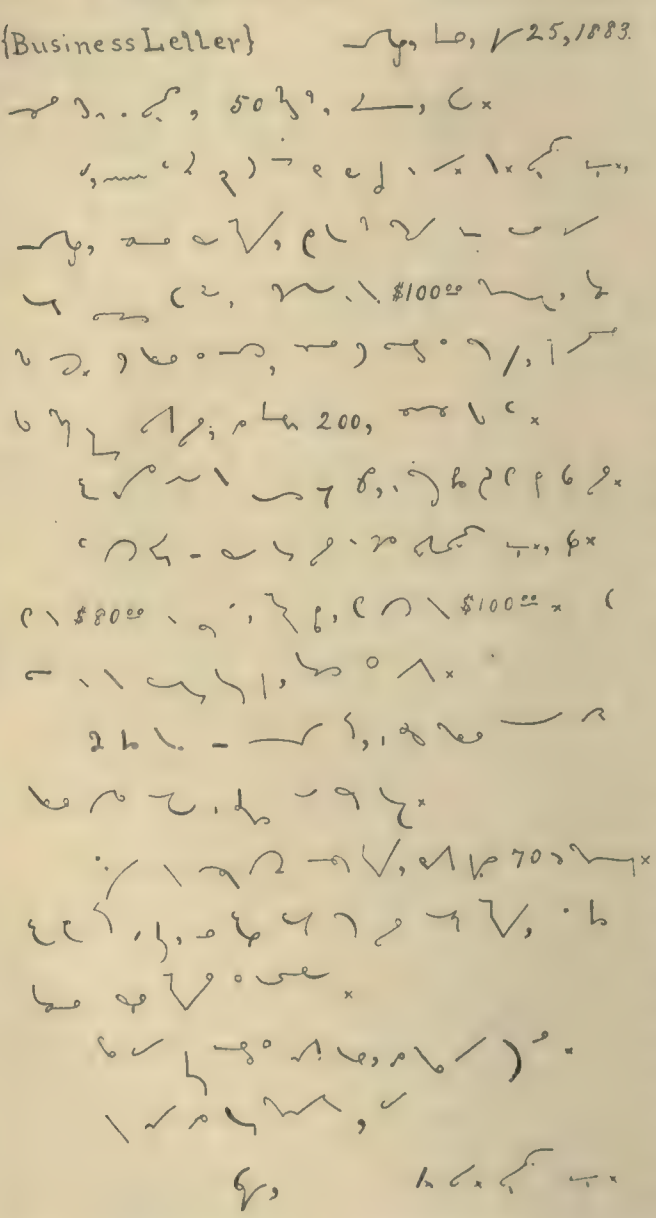
In the United States, Mr. Pitman's system was republished as early as 1845. In 1853, Mr. Benn Pitman, a brother of Isaac Pitman, who had been teaching phonography in England for ten years, came to this country and commenced the publication of phonographic works, which he has carried on ever since, at Cincinnati, Ohio. The early and continued dissemination of Pitman's phonography in the United States has given to that system the advantage of having the largest number of practitioners in this country, although many other systems of short-hand have been published. Those, however, having a phonetic basis have all been derived from, or, rather, are imitations of, Pitman's system. The changes made by Isaac Pitman in the various editions of his phonographic works in England, and by Benn Pitman in the various editions of his system in the United States, have caused these two systems to differ. Benn Pitman's system, although the oldest phonographic system in this country, has kept pace with all the recent improvements in the art. In illustrating the principles of phonography and its uses, in this article, we have selected this system, the alphabet of which will be found on this page.

SHORT-HAND OR PHONOGRAPHIC ALPHABET.

CHARACTER.	SOUND.	CHARACTER.	SOUND.
	p as in up.	 *or* o	s as in us.
	b " be.	 *or* o	z " zone.
	t " it.		sh " wish.
	d " do.		zh " azure.
	ch " each.		l " ale.
	j " joy.		y " ye.
	k " oak.	 *or* 	r " row.
	g " go.		w " we.
	f " if.		m " me.
	v " vie.		n " no.
	th " oath.		ng " sing.
	th " thy.	 *or* 	h " he.
	e " me.		i " it.
	a " day.		e " pet.
	a " alms.		a " at.
	a " all.		o " on.
	o " no.		u " up.
	oo " boot.		oo " foot.
	i " ice.		ow " owl.
	oi " oil.		u " use.

By a careful examination of this alphabet it will be seen that the forty sounds of the English language are represented in a philosophical arrangement, consisting of twenty-four consonants, twelve vowels and four diphthongs. The simplest geometric signs, a straight line and a curved line about one-sixth of an inch in length, written in four different directions, and made light and heavy, furnish sufficiently distinct characters for the representation of all the consonants. A small dot and dash are used to represent the vowels, being placed in three relative

positions to the consonant strokes, and, made light and heavy, are adequate for all practical purposes. A small angle placed in two positions to the consonants represents the diphthongs. The signs for the



vowels and diphthongs may be written on either side of the consonant stroke. For example, write the vertical shaded line *d* and make the second vowel, a heavy dot, on the left-hand side near the middle of the letter, for *a*, which will be read *a–d*, and represents the word *aid*. Make the same sign *d* and place the second-place vowel *a* on the opposite of right-hand side of the letter near the centre, and you have *d–a*, representing the word *day*. Write the horizontal consonant stroke *n*, and make a short dash above the centre of it, thus representing *o–n*, and spelling the word *own*. Write *n* and put the dash for the vowel *o* beneath it, and you spell the word *know*. This illustrates one of the principal features of phonographic writing or sound-writing, representing only the sounds in words as spoken. By the use of the above alphabet any word in the English language, and, indeed, in almost any other language, may be written much more briefly than in ordinary long-hand. By the combination of letters, writing all the consonants of a word without lifting the pen, and by the use of abbreviating principles, such as hooks and circles on the consonants and the combining of words into phrases, a speed in writing sufficient to keep pace with a rapid speaker may be attained. This is termed the "reporting style" of short-hand, in which the appended letter is written.

TYPE-WRITING.

It is not probable that any system of short-hand writing will ever be brought into common use and supplant the ordinary handwriting. The attainment of this end has been the fond delusion of many authors of short-hand systems, but years of labor and thought have as yet failed to produce such a system. The opinion held by some, that no short-hand writer can read the writing of another, is not a correct one, as there are, at the present time, hundreds of short-hand writers who read each other's writing in correspondence and in actual work, so that it is altogether possible that short-hand may be so written by one person as to be read by others. However, in the practical use of the art, this question is of little importance, as nearly all short-hand writing is transcribed, that is, written in ordinary long-hand, by the writer, in order to adapt it to the various uses now made of it. This transcribing has, in past years, been done by the tedious method of long-hand writing.

A Self-Instructor in Short-Hand Writing.

A COMPLETE COURSE, IN TWELVE PRACTICAL LESSONS, Based on the Benn Pitman System of Phonography.

Arranged by Brown & Holland, and used by them in their School during the past eleven years.

LESSON I.—THE ALPHABET.

Name.	Sign.	Sound.	Name.	Sign.	Sound.
pe		as in up.	es	*or*	as in us.
be		" boy.	ze	*or*	" zero.
te		" it.	esh		" ash.
de		" day.	zhe		" azure
che		" each.	el		" oil.
jay		" joy.	ye		" yet.
kay		" oak.	ar	*or*	" air.
gay		" go.	we		" way.
ef		" if.	em		" me.
ve		" vote.	en		" no.
eth		" oath.	ing		" sing.
the		" they.	he	*or*	" hat.
ee		" me.	i		" sit.
ay		" aim.	e		" let.
ah		" car.	a		" cat.
aw		" all.	o		" not.
oh		" old.	u		" nut.
ooh		" boot.	oo		" foot.
eye		" pile.	ow		" now.
oi		" toy.	ew		" you.

LEARN the names, by repeating them over several times, tracing the signs with a dry pen as you pronounce each name. Trace the short-hand signs several times, naming each as you trace it, according to the following directions: The signs *pe, be, ef, ve, ar, we,* slope from left to right, and are written downward; the signs *te, de, eth, the, es, ze* (stroke form), are upright, and are always written downward; the signs *che, jay, esh, zhe, ye,* slope from right to left, and are written downward; the signs *el, he,* slope from right to left, and are written upward, commencing at the line; the signs *kay, gay, em, en, ing,* are horizontal, and are written from left to right, the lower part of the letter touching the line.

WRITING EXERCISE I.

Write the consonant signs ten times on double-ruled paper, the lower part of each sign touching the line, according to the alphabetical arrangement—*pe, be, te, de, che, jay, gay, ef, ve, eth, the, es, ze, esh, zhe, el, ye, ar, we, em, en, ing, he.* The shaded straight letters are made heavy throughout. The shaded curve letters are made heavy in the center, tapering toward each end.

The vowels and diphthongs are written in three positions, beginning, middle and end of the consonant, and are called first-place, second-place, third-place. When written on the left hand of upright or sloping consonants, they are read before the consonant.

Write before the letter *te* the first-place vowels *ee, i, aw, o, eye, oi;* also write them before *pe, che.* When vowels are written above a horizontal letter they are read first. Write the first-place vowels before the letter *kay.* Write before the letters *pe, te, che* and *kay* the four second-place vowels, *ay, e, oh, u.* Write before these four consonants the six third-place vowels—*ah, a, ooh, oo, ow, ew.*

When the vowels are written on the right-hand side of upright and sloping consonants, and below horizontal ones, they are read after the consonants. Write after the consonants *pe, te, che* and *kay* all the first, second and third place vowels.

The student must become thoroughly familiar with the names and forms of the short-hand signs. He may then try how many words he can write containing one consonant with a vowel either before or after. Spell words in short hand as they are pronounced, that is, represent by the short-hand sign the sounds as heard by the ear. For example, the word *though* is not spelled t-h-o-u-g-h, but the sounds are represented by the sign *the* and the second place heavy dash, *oh.*

The use of the second sign given in the alphabet for *es, ze, ar* and *he* will be explained in future lessons.

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LESSON II.--POSITION OF WORDS.

IN short-hand, words are written in three positions — those containing first-place vowels in the first position, those containing second-place vowels in the second position, and those containing third-place vowels in the third position.

At the beginning of the study, and until the hand is trained to an accurate and uniform style of writing, double-ruled paper should be used, that is, paper ruled with lines about one-eighth of an inch apart, and twice that distance between the lines. The lower line of double-ruled paper corresponds to the one line of single-ruled paper, and is the one referred to when "the line" is spoken of. On double-ruled paper upright and sloping letters in the first position are written through the upper line, second position between the lines, and third position through the lower line. Horizontal letters in first position immediately below the upper line, second position resting on the lower line, third position immediately below the lower line. When single-ruled paper is used, the first position is above the line, second position resting on the line, third position through the lower line, and horizontal letters under the line. The consonants form the basis or outline of a word, and must always be written first, and the vowels inserted afterward. When a vowel occurs before a consonant, it must be written on the left hand side of upright and sloping letters, and above horizontal letters. When it is desired to represent a vowel after a consonant, it must be placed on the right-hand side of upright and sloping letters, and below horizontal letters. All dash vowels are made at right angles with the direction of the consonant to which they are placed.

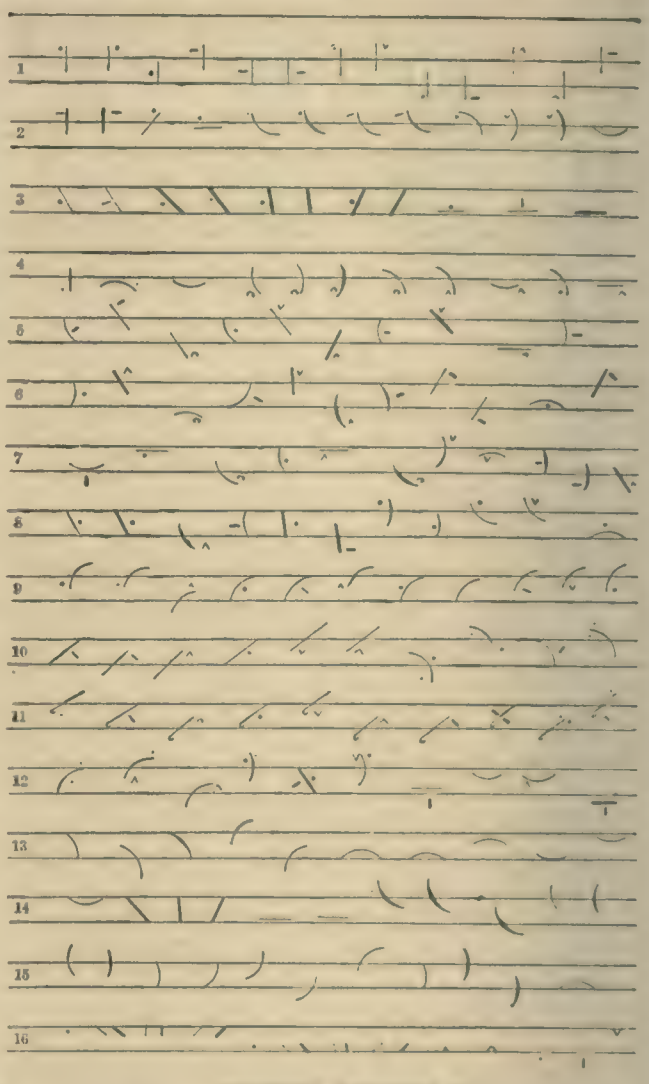
When vowels are inserted in words, the writing is called "vocalized," or "corresponding style;" when the vowels are omitted, it is called "unvocalized," or "reporting style."

In the short-hand lesson words are placed in three positions, according to the vowel used. Read aloud lines 1 to 8 inclusive, tracing each word with a dry pen as you read it.

Consonants which are written upward—*el*, *ray*, *he*—are vocalized from the bottom, which is the beginning of the letter. The first word in line 9 is *eel*. Read aloud and trace lines 9, 10, 11 and 12.

The object of writing words in three positions, according to the accented vowel, is to indicate the vowels in unvocalized words. Each of the letters in lines 13, 14 and 15 represents a word. Read these lines aloud, using one of the vowels indicated by the position of the letter, making a common word, and tracing each character as read. For example, the first word in line 13 may be read *air*, *ore*, or *err*. When words are grouped together in sentences, there is no difficulty in determining what word is intended to be represented by the consonant outlines, as the context will indicate the same.

When vowels alone are used to represent words, they are called vowel word signs. The vowel word signs in line 16 represent the following words: The, of, all, or, already, on, aught, and, to, two, but, before, should, who, how, you, ah, oh, I.

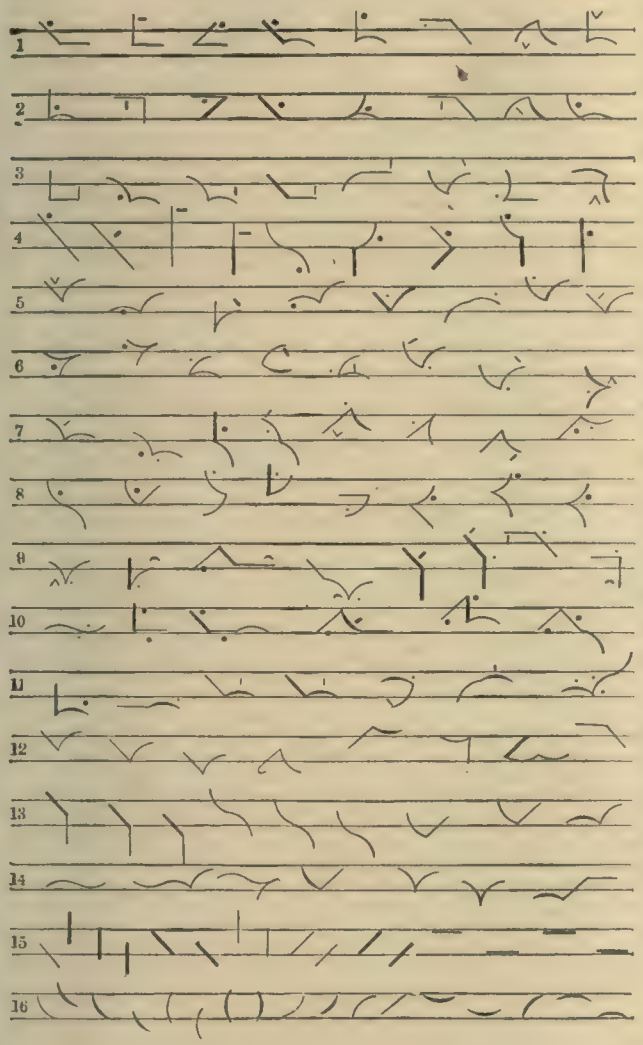


WRITING EXERCISE II.

Copy lines 1 to 16 inclusive ten times, and transcribe the lines into long-hand. Write the following words in short-hand:

Ate, at, awed, ape, Abe, ache, aid, add, are, am, an, all, air, aim, ale, age, ago, allow, alloy, allay, airy, arrow, away, Annie, annoy, anew, Anno, aha. Be, by, boy, bough, bow, bay. Cow, cue, coy, chew, chaw. Die, do, due, day, dough. Eat, each, eve, eel, ear, ebb, Edd, etch, edge, err, eyes, ell, echo, Eva, era, easy, Erie, Emma. Foe, fay, few, fee, fie. Go, gay, gnaw. High, hue, how, he, hay. It, itch, if, ill, ice, icy, in, issue. Jaw, jew, Joe. Key, knee. Lay, low, lee, law, lieu, lie. May, me, mew, mow. New, now, nay, no. Ought, oat, out, odd, off, of, or, oath, ope, ode, oak, ooze, oil, oily, owl, own, owes, obey, our. Pew, pea, paw, pie, pay, pshaw. Row, row, raw, rue, rye, ray. Say, so, show, see, sigh, shoe, she, sue, saw, shy. Tie, toe, toy, tea, to, the, they, though, thaw, thigh, thy, thou. Up, use, use. View, vow. Way, woe, we, woo, who. Yea, your, youth, ye, you.

LESSON III.—WORDS CONTAINING ONE OR MORE CONSONANTS.



IN combining consonants to form words, they are written in the same direction as when standing alone, the second beginning where the first ends, the third where the second ends, etc.

First-place vowels occurring between two stroke consonants must be placed *after* the first consonant, and third-place vowels *before* the second consonant.

The first upright or sloping letter in a combination determines the position of the word. In first-place words this upright or sloping letter is written halfway through the upper line (see line 1); second place words between the lines (see line 2); third-place words through the lower line (see line 3). In combinations containing two upright or sloping letters the first one determines the position of a word, as in line 4.

When the letter *el* is joined to other letters, it may be written either upward or downward, convenience in joining determining the direction. When *el* begins a word followed by *kay* or *em*, use the upward *el;* when a vowel precedes it, use the downward *el;* when *el* is the last letter in a word, write the *el* downward, if it joins conveniently; when there is a final vowel after it, write *el* upward, if it joins conveniently. See lines 5 and 6.

The curved sign *ar* is written downward, and should always be used before *em*. The straight sign for *ar* (called *ray*) is always written upward, and should be used before *ef, ve, ith, en, ing*. In other cases, when preceded by a vowel, use *ar;* when followed by a vowel, use *ray*. When it is the last letter of a word, use *ar;* when followed by a final vowel, use *ray*. See lines 8 and 9.

When words contain more than one vowel, the primary or accented vowel determines the position. When any doubt exists, write the word in the second position, it being the most convenient.

In the alphabet there is no shaded letter corresponding to *em*. This sign represents the double consonant *mp* or *mb*, called *emp*.

The reporting style of short-hand is writing consonant outlines in three positions, without vowels (or "unvocalized"), and the use of word-signs and phrases. Each of the consonants in lines 11, 12, 13, represents a common word.

A word-sign is one or more letters written in other than the position of the leading vowel, or a contraction representing the word. The single consonant word signs, lines 15 and 16, represent the following words: Party, dollar, do, had, be, to be, time, it, which, much, advantage, large, common, come, give, together, for, ever, have, however, think, thank, them, was, shall, issue, usual, will, are, thing, language, your, important, improvement.

Read and copy exercise 3 ten times, and transcribe it into long-hand, numbering each line of transcript.

WRITING EXERCISE III.

Write the following words three times vocalized, and three times unvocalized:

Acute, arm, ask, alum, arrive, abode, abide, ambush, ample, advantage, are, army. Beam, bought, babe, bell, bale, bellow, body, bump, bit, bite, bait, boat, bet, body, boot, bat, beauty, be, book, bake, become. Cheek, coat, code, cage, cud, cash, copy, camp, common, come, chalk. Date, dolly, dare, dish, dash, duly, decay, damp, dairy, dollar, do. Elm, error, earth, embark, embellish, ever, early. Fame, full, feed, foot, fill, folly, fully, fair, fairy, fish, fob, fire, far, fury, for. Genuine, give, hourly, have, however, half, had. Into, it, issue, improvement, important. Keep, kneel. Like, love, look, lamb, long, lamp, lump, large, language. Mouth, mule, male, meal, Mary, many, money, manual, much. Nail, namely. Occupy. Peak, pick, peep, pope, pure, pale, page, pull, purely, pump, party, pout, pile, pale, pier. Room, roam, roof, rainy, rebuke, revoke, redeem, repair, romp, ring, rosy. Shame, shade, shape, sheep, shore, sheer, share, shall. Talk, team, time, tame, take, took, taught, toad, tool, tide, to be, together, think, thank, them, thing. Vowel, very. Usual. Which, was, will. Your.

LESSON IV.—THE HALVING PRINCIPLE.

BY the mastery of lessons 1, 2 and 3 the student has already learned short-hand sufficiently to write any word in the English language, and has made all the progress that is claimed for any of the "shortest, easiest-to-be-learned" systems which have ever been invented. A study and practice in writing of what has already been learned equal to that which is devoted to learning long-hand writing, would enable the pupil to write sixty words a minute, or three times as fast as ordinary long-hand writing. This, however, would not be sufficient for reporting speeches in which the speed varies from 100 to 200 words a minute. In order to attain this higher rate of speed in writing it is necessary to use abbreviating principles. The simplicity of the primary principles of short-hand, as already given, allows the application of a variety of abbreviating principles, by the employment of which the highest possible rate of speed in writing may be attained. These principles will be introduced according to our own arrangement in this and subsequent lessons.

The halving principle is used as frequently as any other, and is always difficult to learn. We, therefore, give it as the first principle of abbreviation.

Each stroke consonant may be made half its usual length to add *t* or *d*. When a vowel is written after a half-length letter it is read between the consonant and the added *t* or *d*, as in "pet," first word line 1. When a vowel is written before a half-length letter it is read first, as in "apt," first word line 2. The first position for half-length letters is immediately under the upper line, second position resting on the lower line, third position below the lower line.

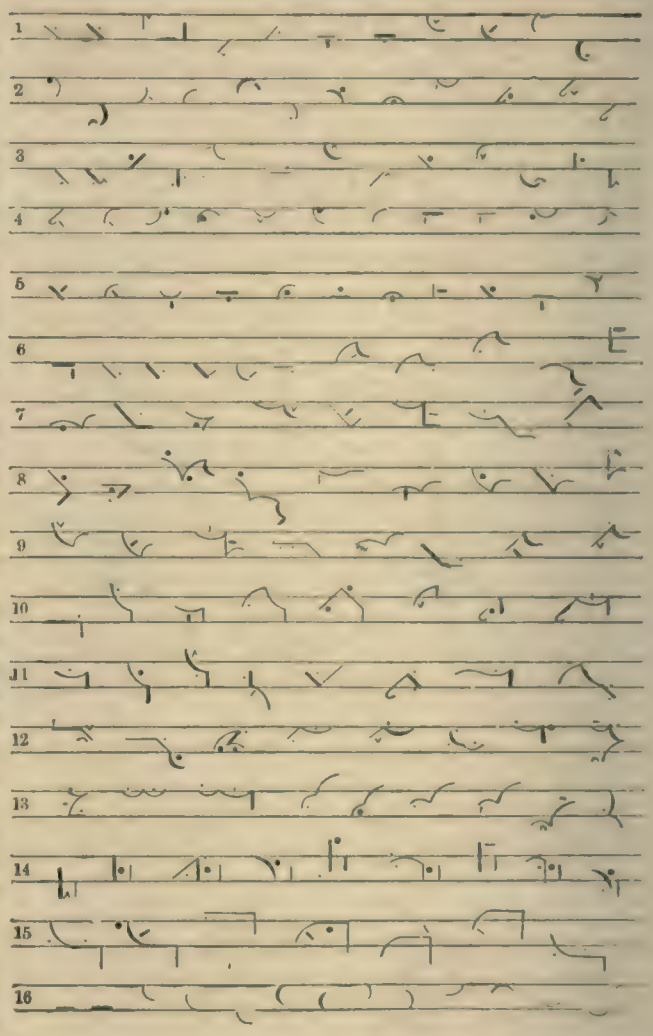
As either *t* or *d* is added by the halving principle, the half length letter *pe*, followed by the vowel *ay*, may represent either *pate* or *paid*, and similarly with many other simple words.

Read aloud and trace lines 1 to 4, inclusive.

In consonant combinations either one or all of the consonants may be made half-length. When a half-length letter is followed by another consonant the *t* or *d* is read before the additional consonant. See first word in line 13, "intellect." Read aloud and trace lines 6 to 13, inclusive.

The halving principle can be used only in combinations where a distinct angle is formed at the joining of letters. In some words it is better to write the half-length letter disjoined, as in line 14, the first word in which is "doubted." In other cases it is necessary to write the full consonant outline, as in line 15. Read aloud and trace lines 14 and 15.

The half-length word signs given in line 16 represent the following words: Could, good, feature, after, fact, that, without, astonish, establish, wished, immediate, nature, under, read. Read aloud and trace line 16.

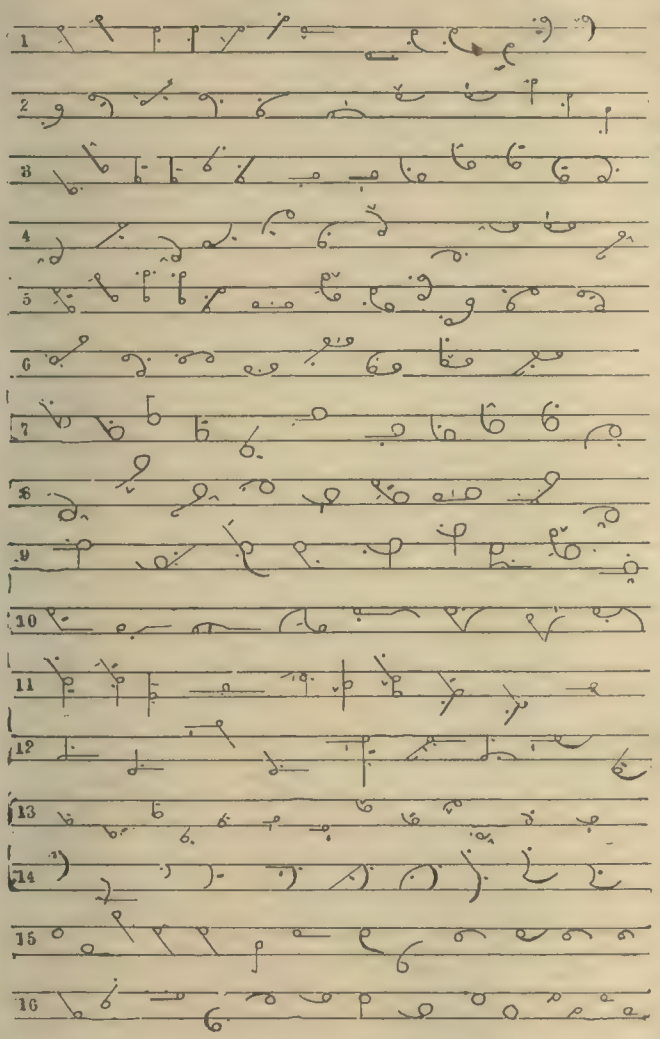


WRITING EXERCISE IV.

Copy short-hand lesson IV. ten times, and transcribe it in long-hand. Write the following words in short-hand:

Art, apt, about, aged, added, ached, arrived, acted, avoided, alphabet, assert, awaited, affect, after, astonish. Bet, boat, bait, bad, boot, begged, belt, backed, better. Chat, cut, cat, coat, cot, caged, captivate, could. Date, dead, doubted, dated, deeded, dotted. East, end, ended, editor, evident, effect, evoked, establish. Fight, foot, failed, filed, fold, fitted, faded, feature, future. Get, got, gate, good. Hate, height, hat, hot, hated, hunted, habit. Invite, induct, indeed, individual, imitated, intellect, intend, intended, immediate. Knocked, kicked. Let, light, lot, lit, load, laid, loved, laughed, lived, lighted, legitimate, little, lately, locate, locked, looked. Met, meat, mode, moved, mailed, mold, mild, mended, middle, model, mutual, meditated. Not, night, note, noted, nature. Oft. Pet, pad, paid, port, paged. Rout, robbed, relieved, removed, repeated, radiated, read. Shut, sheet, shot. That, talked, toiled. Used, unpacked, untold, under. Vote, viewed. Wait, weighed, written, writing, without. Yacht.

LESSON V.—THE CIRCLE "S" AND "Z."



THE frequently recurring sounds *es* and *ze* are provided for in short-hand by a small circle joined on the right-hand of upright and sloping *straight* letters, and above horizontal *straight* letters. The student must observe carefully the side of *straight* letters on which this circle is used, as by confining it uniformly to one side, we have the use of it on the opposite side for the representation of other abbreviating principles. This, however, does not apply to curved letters, as the circle *s* is always made inside the curve. The circle *s* at the beginning of a letter is always read first.

As there is no beginning, middle or end to the circle, it cannot be vocalized. The vowels must, therefore, be placed to the consonant to which the circle is joined, and read either before or after that consonant; if before, between the circle *s* and the consonant. See first word in exercise 5—*s-u-p*, "sup." When the circle is at the end of a letter, it is read last, after the vowels. The circle may be used both initial and final, as in the lines 5 and 6.

By making the circle double its usual size, it represents the syllables *ses* and *sez*, as in "pieces." See lines 7, 8 and 9. When the circle *s* occurs between two *straight* letters forming an angle, the circle is made outside the angle, which is the shortest direction for writing. If both letters are written in the same direction, the circle *es* must retain its position on the right-hand side of upright and sloping straight letters, and above horizontal straight letters. See line 2. The application of this principle makes it necessary, in placing the *es* on the outside of the angle, to join the circle on either side. See line 12.

The circle *s* used on half-length letters, is read after the added *t* or *d*. When *s* or *z* are the only consonants in a word, or when *s* or *z* is the first consonant, preceded by a vowel, or the last consonant, followed by a vowel, use the stroke form for *s* and *z*, as in line 14.

The word signs in lines 15 and 16 represent the following words: Is, as, speak, special, subject, satisfy, signature, several, salvation, similar, single, simple, somewhat, objects, religious, because, those, impossible, influence, system, United States.

When a sign represents more than one word it is called a phrase, as in line 16. The large circle, first position, represents *is-as*; second position, *as-is*. The remaining phrases in line 16 are: Is-the, as-the, is-a, as-a.

WRITING EXERCISE V.

Write the following words in short-hand: Assays, arise, arouses, accuses, amuses, accept, ask, asp, also, arts, as, as-is, as-the, and-is and-as. Boys, basis, bestow, besides, boots, busy, because, bask. Cheese, choose, case, custody, ceases, chooses, cask, choosing, chats, cuts, cosy, causing, cities. Does, doses, dusty, decide, desk, dismay, designs, dots. Eggs, exist, exercise, except, easy. Face, faces, fights. Goes, gazes, gossip, goods. House, hours, hisses, husk, hasten. Insist, induce, icy, is, impossible, influence, is-as, is-the. Joys, Jesus, jots. Kisses. Lace, lessons, listens, loosens, loses, loves, lazy, lights. Mass, mazes, misses, musty, meets. Nice, noses, necessary, necessity, notes. Oozes, owns, opposite, objects. Pays, pieces, possess, possessor, passage, pets. Rose, reasons, rises, rosy. Sup, sob, sorrow, sway, sighs, sash, stay, soar, shoes, suppose, series, speak, speedy, special, said, sale, sake, says, sobs, siezes, sways, sashes, supposes, systematic, spoke, shoots, several, signs, system, such, sum, seeds, souls, seems, success, snake, saying, salvation, sieges, signs, songs, sages, soars, sense, since, smoke, seeing, similar, simple, sky, sip, sex, stays, scheme, subject, single, somewhat, sage, safe, soap, sacks, suspect, saves, snare, sauce, sat, suffices, seek, signify. Toes, thaws, thus, tosses, thesis, task, thoughts. United States. Upset. Voice, vices, votes. Wise, ways, waits. Yes, yachts.

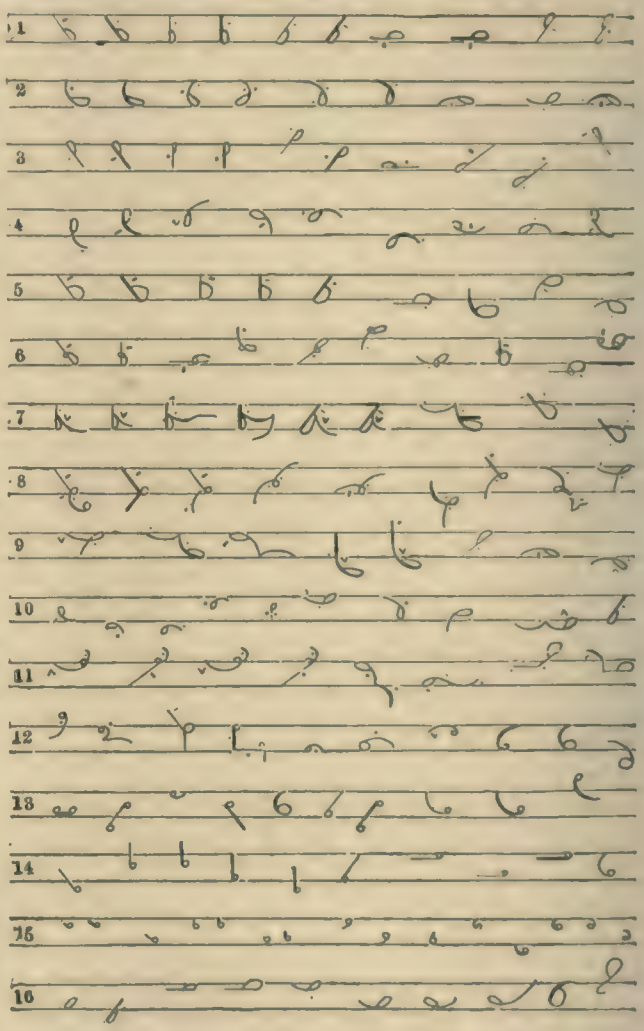
LESSON VI.—LOOPS "ST" AND "STR."

A LOOP the width of the circle *s*, and one-half the length of the consonant to which it is joined, represents the combination *st*. This loop is governed by the same rules as the circle *s*, and is made on the right-hand side of upright and sloping, and above horizontal, straight letters, and on the inside of curved letters. See lines 1 to 4. A large loop the width of the circle *ses*, represents the combination *str*. See line 5. The circle *s* may be made after the *st* and *str* loops, as in line 6. These loops may be used in the middle of words, as in line 7. The circle *s* sometimes represents *st*, where the loop cannot be conveniently made, as in line 8. The ending *st* is occasionally represented by the half-length *s*, written upward, as in the first four words of line 11.

The circle *s* represents the prefix *self* and the affix *self*; the large circle *ses* represents the affix *selves*, as in line 12. The circle *s* in phrases represents *is*, *as*, *his*, or *has*. The phrases in line 13 are: as-good-as, as-much-as, is-not, is-to-be, this-is, which-is, as-large-as, for-his, have-his, is-ever. The circle *s* is used to represent the plural of nouns the singular of verbs, and the possessive case. The word signs in line 14 are: Parties, times, dollars, does, advertisements, advantages, because, comes, gives, thinks.

The words and phrases in line 15 are: Of-his, all-is, to-his, or-is, already-has, but-as, before-his, on-his, should-his, whose, thoughts, facts, that-is, astonishes, establishments. The word signs in line 16 are: First, largest, commonest, extraordinary, influenced, next, stenography, stenographer, yesterday, history.

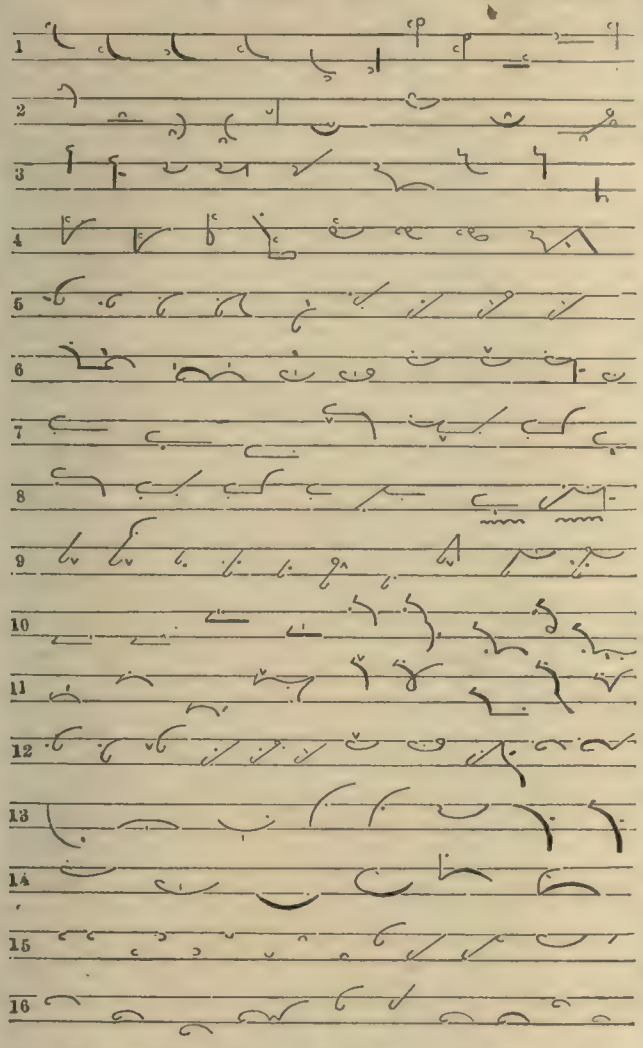
Read aloud lines 1 to 16 several times.



WRITING EXERCISE VI.

Copy exercise VI. ten times. Transcribe it into long-hand. Write the following words in short-hand: Atheist, assayist, arrest, amazed, amused, announced, antagonist, abstract, analyzed, as-good-as, as-much-as, as-large-as, advertisements, advantages, all-his, already-has, astonishes, answer. Beastly, before-his, best, boaster, boasts, but-has. Castor, castors, castle, caucuses, chaste, chests, chorister, coast, coaster, coasts, costly, comes, commons, commonest. Distinct, distinguish, does, dollars, dust, duster, dusters. Embarrass, embezzle, establishments, extraordinary. Faced, facts, fast, faster, feast, feasters, festers, first, for-his, foster, guest, gives. Hands, haste, has-not, have-his, his-has, history, honest, honesty. Influenced, invest, investigate, is-ever, its, itself, is-not, is-to-be, imposter. Jest, jester, jesters, joist, justify, justified. Largest, last, lastly, lists, luster. Master, midst, most, mostly, muster, must, myself. Orchestra, ourselves, obstruct, of-his, on-his, or-his, ought-his. Parties, past, pester, posts, postal, postage, post-office, poster. Raised, raciest, revised, received, rosiest, rooster. Stab, stack, stabbed, state, stage, stag, staff, stake, stare, starry, start, stamp, stain, stairway, stamina, step, stead, stem, steam, stealthy, steamed, stenographer, stenography, stamped, sting, stove, stole, story, stock, stoop, store, storm, stuff, stung, stitch, study, stuffed, songsters, sincere, selfish, selfsame, self-made, self-esteem, self-education, self-possessed, should-his, sometimes, style. Taste, tastes, testify, testified, times, this-is, thinks, thanks, thoughts, that-is, themselves, thyself, to-his. Vast, vaster, vastly, vest. Waste, west, westward, which-is, whose. Yesterday, yourself, yourselves. Zest.

LESSON VII.—"WE" AND "YE" DIPHTHONGS.



IN addition to the consonant signs for the coalescents *we* and *ye*, when these letters are used in connection with any of the vowels or diphthongs, they form what is called a coalescent diphthong, which is represented as follows: A small *the* curve, that is the curved sign resembling the letter *the*, but only about one-fourth the length of the letter, placed in the position of the three long-dot vowels, represents *we, wa, wah;* an *eth* curve, written in the position of the three short dot vowels, represents *wi, we, wa;* a *ze* curve in the position of the three long dash vowels represents *wau, wo, woo;* an *es* curve in the position of the three short dash vowels represents *wo, wu, woo;* a small right angle in the position of the diphthongs represents *wi, woi, wow.* Read line 1. A small *ing* curve in the position of the three long dot vowels represents *yee, ya, yah;* an *en* curve in the position of the three short dot vowels represents *yi, ye, ya;* an *emp* curve in the position of the three long dash vowels represents, *yaw, yo, yoo;* an *em* curve in the position of the three short dash vowels represents *yo, yu, yoo.* Read line 2. These coalescent diphthongs in the first and third positions may be joined to the consonant when they will form a distinct angle. Read lines 3 and 4.

WE HOOKS.—A small initial hook on *l, ray, m, emp* and *n* represents the letter *w*, the hook is read first. Read lines 5 and 6. A large initial hook made above the letter *k* also represents the letter *w;* this hook is used in the class of words commencing with *qu*, pronounced *kw*. This hook is read after the *k*. Read lines 7 and 8.

HE SIGNS.—In addition to the stroke form for *he*, given in the alphabet, it is also represented by a *che* tick, that is, a small tick written downward in the direction of the letter *che*. The stroke form for *he* should be used in all words where *he* is the only consonant, and in many others beginning with the letter *he*. Read line 9. The tick *he* is only used before those consonants with which it will form a distinct angle, as *k, gay, r, m, s* and *we*. Read lines 10 and 11. The last five words in line 11, when written in long-hand, commence with the letters *wh;* but as the *he* in this combination is pronounced first, in short-hand it is written first. When a word beginning with *hw* can be most conveniently written with the *w* hook on *l, ray, m* and *n*, the *he* may be omitted. Read line 12, commencing each word with *hw*.

DOUBLE-LENGTH LETTERS.—Any curved letter made double its usual length, represents the addition of *ther, ter* or *der*. Double-length *ing* also represents an added *ger*, and double-length *emp* an added *per* or *ber*. Read lines 13 and 14.

Line 15 contains the following word-signs: We, with, were, what, would, ye, yet, beyond, you, while, where, wherewith, when, he, their. With and we may be represented by a *we* hook in phrases. Line 16 contains the following phrases: With-me, with-him, with-whom, with-him-you-will, we-will, we-are, we-may, we-may-be, we-might, we-met.

WRITING EXERCISE VII.

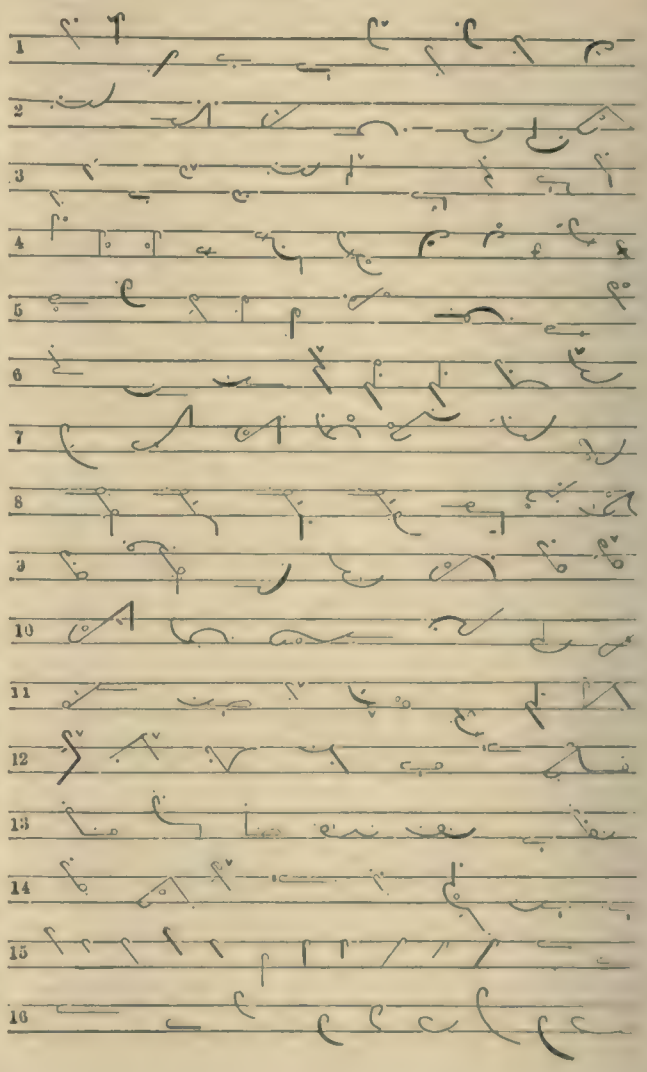
Copy lines 1 to 16, ten times. Write the following words in short-hand: Aha, another. Betwixt, beyond. Curious. Due, dwell. Father. High, highly, hip, hay, hate, hat, height, hung, hang, hasten, house, harmony, horse, harm, hearsay, her, here, hug, hog, hack, hook, home, hazy, hymn, huzzy, hymeneal. Inquiry. Leather, letter, latter, longer. Mother. Neither. One, once. Quick, quote, quake, quarrel, queer, quartz, "quo," quire, query, quack, quest, quilt, quit, qualify. Smoother, September, Swede, sweat, swift, swiftest, swing, superior. Twice, twill, timber, twist. Use. Weave wound, wave, walk, waif, wag, wove, wit, wooed, woof, widow, weed, wide, walked, wife, want, war, wanted, warm, Wabash, wardrobe, washing, worship, wall, weary, wilt, worse, wealth, work, well, wool, wear, went, wigwam, Winchester, wampum, window, win, wine, whimper, while, when, wheel, whale, whim, whence, wharf, where, whine, whither, weather, wander, winter, wonder, Walter, we, what, wherewith, would, with, were, with-me, with-whom, with-him-you-will, we-will, within, with-him, we-are, we-may-be, we-may, we-might, we-met. Year, young, yoke, yet, yon, youth, Yankee, you, ye.

LESSON VIII.—THE "L" HOOK.

THE letter *l* occurs frequently in connection with all other consonants, forming in many words a consonantal diphthong. It is conveniently represented by a small initial hook made on the right-hand side of upright and sloping, and above horizontal straight letters, as in line 1. To distinguish the *l* hook series of letters from the single consonants, the latter are called *pe-el*, *be-el*, and the former *pel*, *bel*, etc. Although the *l* hook is made on the beginning of a consonant, it is read after it.

A vowel after an *l* hook consonant is read last; the first word in line 1 is *plea*. A vowel before an *l* hook consonant is read first; the second word in line 1 is *idle*. Read line 1. The *l* hook on the *esh* and *zhe* cannot be made on the back of the letter, or on the right hand side, these letters are therefore struck upward, and are never used except when joined to other letters. The *l* hook on *ray*, *m*, *mp*, *n*, *ing* is made large to represent *rel*, *mel*, *empl*, *nel*, *ingl*, and to distinguish it from the *we* hook on those letters. The initial hook of *he* is also made large to represent *hel*. Read line 2. In half-length consonants on the *l* hook series, the added *t* or *d* is read after both consonants. Read line 3.

A vowel may be represented between the double consonants by making a small circle in the position of the vowel before the double consonant for the long dot vowels *ee*, *ay*, *ah*, and by a small circle after the double consonant for the short dot vowels *i*, *e*, *a*. The dash vowels are struck through the stem of the letter, except when they would interfere with a hook or circle, when they are written immediately before the consonant, if first-place; and immediately after it, if third-place. Read line 4. When a double consonant of the *l* hook series is preceded by the circle *s*, the circle is slightly flattened and made inside the hook, and is always read first. Read lines 5 and 6. Curved Consonants of this series may be made double length for adding *ther*, *ter*, *der*. Read line 7. In a few words, where the *l* hook is preceded by another consonant and a circle *s*, the hook cannot be made complete, but there is no difficulty in reading those words. Read lines 8 to 12.



The frequently recurring prefixes *com* and *con* are represented by a dot made before the beginning of the letter. Read line 13. The affix *ing*, when the consonant *ing* cannot be conveniently joined, is represented by a dot made after the end of the letter. Read line 14.

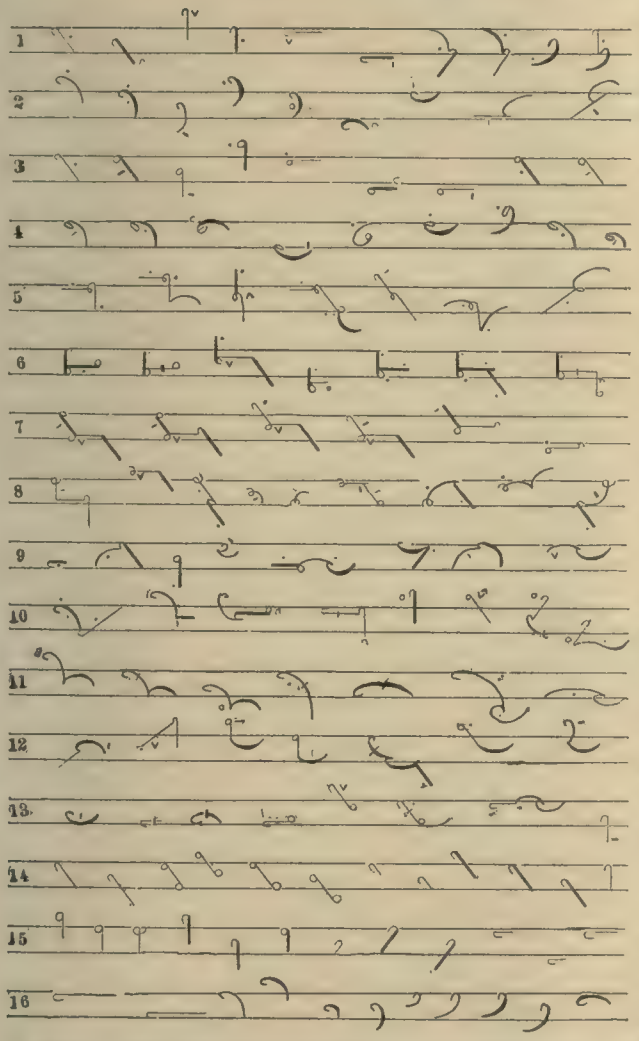
The word signs in lines 15 and 16 are: Comply, complete, people, belong, build, until, deliver, delight, children, child, angel, equal, difficult, collect, glory, follow, value, theology, only.

The curved word signs may be made double length for the addition of their-there in phraseography. The last three signs in line 16 represent the phrases: Follow-their, value-their, only-there.

WRITING EXERCISE VIII.

Transcribe exercise VIII. and copy lines 1 to 16 ten times. Write the following words in short-hand: Able, agile, angle, ankle, applied, apple, April, awful. Beautiful, belong, Bible, blame, blot, build. Call, camel, calling, canal, casual, casualties, child, children, civil, clay, clot, clothed, clouded, close, circle, connect, commencing, complacent, complete, compel, completing, complex, comply, conclude, concluding, conflict, consonant, context, cultivate. Dangle, delight, deliver, developing, difficulty, double. Enable, enclose, equal, evil, example, exclude, explicit, explode, explore, explosive. Fangle, family, female, final, flat, flight, flutter, fly, follow, follow-their, fulfill, funnel. Glad, girl, glory, glue, gold. Halifax, healing, help, helping. Idle, imperial, initial, initialed, including, involved. Melancholy, military. Oblige, official, only, oral. Pearl, people, peopled, pickled, place, plat, plea, please, pleasing. Railway, reality, relent, reply, rule. Saddle, sable, serial, settle, school, shouldered, simplicity, skill, stable, supple, supply, supplying. Table, tale, tell, theology, till, titled, told, tolerable, tunnel. Unable, uncle, unhealthy, until. Value, value-their, vocalize. Yale, yellow, yield.

LESSON IX.—"R" HOOKS.



A SMALL initial hook on the left-hand side of upright and sloping and below horizontal straight consonants represents *r*. This is called the *per* series of double consonants. When speaking of them we use the one-syllable name *per* to distinguish them from the single consonants *pe-ar* etc. Vowels are written either before or after double consonants of the *per* series, or may be expressed between the two consonants, the same as in the *pel* series, as follows: For the long dot vowels make a small circle in the position of the vowel before the double consonant; for the short dot vowels a small circle in the position of the vowel after the double consonant. Write the first-place dash vowels just off the beginning of the consonant; the second-place dash vowels through the consonant, and the third-place dash vowels just off the end of the consonant. The student will soon become familiar with the outlines of words, and full vocalization will not be necessary. It would not be convenient to make a hook on the back of the curved letters *f, v, ith, the.* These letters are therefore reversed to bring the hook on the left side and inside the curve. These forms will not be mistaken for the similar letters *r, we, s* and *z*, as the initial *r*, hook is not used on these four letters. The stem of the letter is shaded in *mer* and *ner* to distinguish them from *wem* and *wen*. Read lines 1 and 2.

On eight straight consonants of the *per* series the hook is made into a circle on the left side to represent the *str* series of treble consonants. Read line 3.

When the circle is used on the curved letters of the *per* series it is made inside the *r* hook, and is always read first. Read line 4.

When *s* occurs before the double consonant in the middle of a word, both the circle and the hook must be made. Read line 5.

When *ker* and *ger* follow *ts* and *ds*, the circle only is used and is written on the right side of *t* and *d* and below the *k* and *gay*. Read line 6.

After *p* and *b* the circle and hook cannot be distinctly made, but there will be no difficulty in reading this class of words. Read line 7.

The prefixes *in* and *un* before the *spr* series of consonants is represented by a small backward hook; also before *ser, sel* and *sem*. Read line 8.

When double consonants of the *per* series are made half-length, the added *t* or *d* is read after both consonants. Observe that although the hook representing *r* is initial, it is always read after the consonant on which it is used. Read lines 9 to 13 inclusive.

The word-signs in line 14 are: Principle, practice, experience, surprise, express, suppress, particular, opportunity, liberty, remember, number, truth.

In line 15: Strength, external, instruct, doctor, during, consider, charity, danger, larger, according, accurate, Christian.

In line 16: Correct, character, from, over, virtue, other, short, sure, pleasure, measure, Mr. or remark.

WRITING EXERCISE IX.

Copy exercise IX. ten times, and transcribe either in long-hand or on the type-writer.

Write the following words in short-hand: Archer, azure. Brow. Cedar, charming, charity, cheerful, christian, character, color, court, comprise, consider, correct, criminal, cry, culture. Danger, destroy, descry, discried, disgrace, disagree, describer, disagreeable, discursive, dear, doctor, dray, during. Either, energy, every, everywhere, extra, extreme, examiner, expert, express, expressive. Farmer, figures, former, forgot, from, fraternal, free, further. Greet, grow. Honor, humor. Instruct, instructor, inscribe, insert, insult, inseparable, invulnerable. Labor, larger, learner, lover, liberty. Masterly, Mr. measure, more, maternal, minor, murder. Number. Obscure, occurs, opportunity, over, other, owner. Pray, present, prescribe, practice, particular, prosper, proscribe, principle pleasure. Remember, roller, rumor. Saber, sadder, seeker, surely, sober, spray, strew, striver screw, suitor, supper, suffer, swimmer, sooner, sever, sinner, sailor, seizure, safer, suffering, subscribe, subscriber, scribe, severed, secure, short-hand, spry, strong, strength, sure, strung, spring, separate, suppress, surprise. Try, treasure, true, there, truth, through, toward. Unscrupulous, unseemly, unsalable, unsociable. Virtue. Wager, wager, westerly, writer, wrestler.

LESSON X.—"F," "V" AND "TION" HOOKS.

A SMALL final hook on the right hand side of upright and sloping and above horizontal and straight letters represenst either *f* or *v*. On *ray* and *he*, which are written upward, this hook is made above. The *f* and *v* hook is only on straight letters. Read line 1. *S* may be added after the *f* or *v* hook by making the circle inside the hook. Read line 2.

The *f* and *v* hooks may be used in the middle of words. Read lines 3 and 4.

A large final hook made on the right hand side of upright and sloping and above horizontal straight letters (the same side as the *f* and *v* hook) represents *tion* or *sion*. This hook is also used on the inside of curved letters. Read lines 5 and 6.

To represent *tions* and *sions* make the small circle *s* inside the hook. Read line 7.

The syllable *tion* is represented after the circle *s* and loops *st* and *str* by a small hook made on the opposite side of a consonant. This *s-tion* hook is vocalized by writing first place vowels before the end of the consonant, and second place vowels after it. Read line 8.

When *s* follows this *s-tion* hook the circle is made inside the small hook. Read lines 9 and 10.

The prefixes *inter*, *intro*, and *enter*, are represented by half-length *n* joined to the remainder of the word. Read line 11.

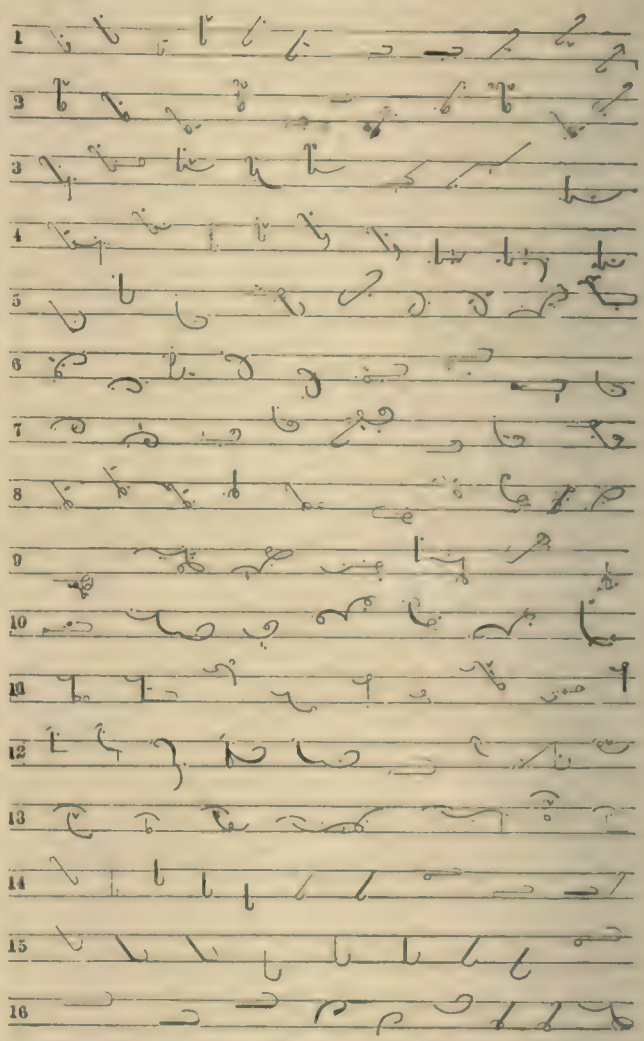
The prefixes *contra*, *contro*, *counter*, are represented by a disjoined *che* tick; that is a short tick made downward in the direction of *che* at the beginning of a word. Read line 12.

The prefixes *Magni* and *Magna* are represented by a disjoined *m*, the remainder of the word being commenced under and near the center of the *m*. Read line 13.

The *f* and *v* hook word signs in line 14 are: Perfect, whatever, divine, difference, advance, whichever, Jehovah, descriptive, careful, government, reverend.

The *tion* hook word signs in line 15 are: Option, objection, contribution, tuition, condition, generation, imagination, description.

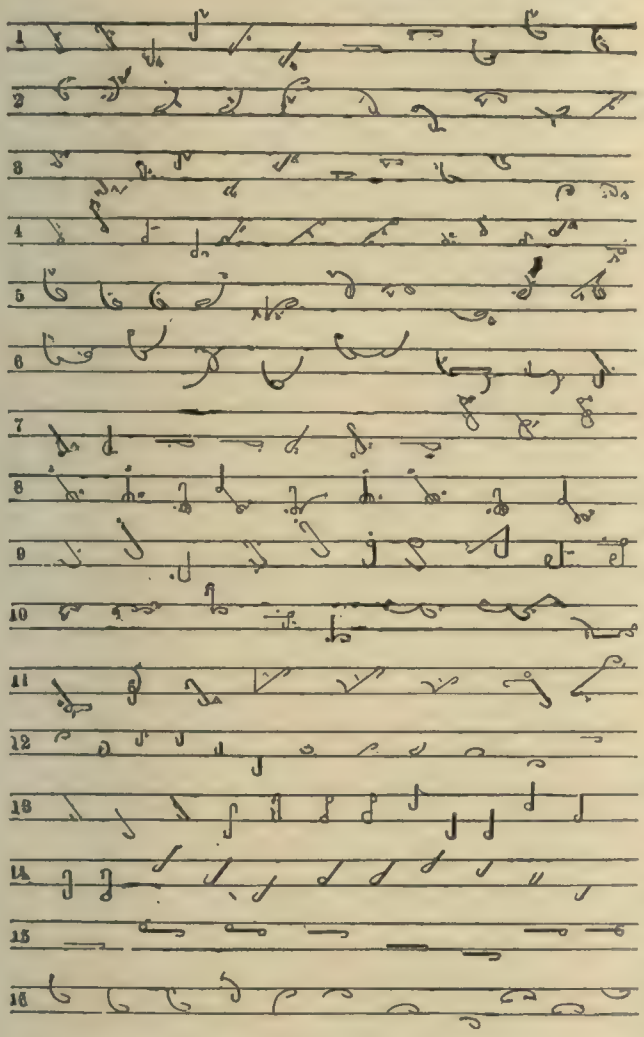
The word signs in line 16 are: Correction, glorification signification, revelation, revolution, information, justification, jurisdiction, investigation. Read lines 14, 15 and 16.



WRITING EXERCISE X.

Achieves, approves, adventure, advocate, advocacy, advent, addition, ambition, aversion, actions, acquisitions, arrestations, accusations, annexation, attestation, advance. Beef, braves, brevity, briefest, bravest. Cessation, cuff, craft, cover, contrivance, contrive, confusion, consummation, constitution, consecration, conclusion, confessions, centralization, civilization, connections, contradict, counterfeit, counterfeited, controversy, contradistinction, contravention, counteraction, counter-irritation, counterpart, countersign, creative, construction, condition, correction, chief. Dive, drove, drives, derives, differ, descriptive, directions, description. Edition, exhibition, emulation, exception enterprise. Fashion. Gave, gifts, govern, generation, glorification. Hive, half, hallucination, heaven. Intervention, introduce, interline, introduction, intercept, interfered, intercourse, interview, intercede, interest, imagination, investigation, information, illustration. Jove, Jehovah, jurisdiction. Mission, manifestations, molestations, moralization, magnify, Magna Charta, magnitude, magnetic, magnificent, magnanimous, magnetize, mention. Notions. Oration, obligation, omissions, occasions, oppositions. Pave, proves, prefix, profanity, prevent, position, possession, procession, persuasion, physician. Reverend, revelation, revolutions. Strives, session, stations, suggestion, symbolization. Tough, tuition, twelve. Version, vision. Whatever, whichever.

LESSON XI.—THE "N" HOOK.



A SMALL final hook on the left-hand side of upright and sloping and below horizontal straight letters and on the inside of curved letters, represents *n*. Read lines 1 and 2.

When the *n* hook is used on half-length letters, the added *t* or *d* is read after the hook. The first word in line 3 is "point." Read line 3.

The hook being on the opposite side from the circle *s*, it is made into a circle on the left-hand side of upright and sloping and below horizontal straight letters to represent *ns*. Read line 4.

When the *n* hook is followed by the circle *s* on curved letters the *s* is made inside of the hook. In order to do this, do not enlarge the hook, but flatten the circle. Read line 5.

The *n* hook is used to advantage in the middle of many words. Read line 6.

On straight letters, the *n* hook may be followed by the *st* and the *str* loops by making the hook into a small or large loop. Read line 7.

The *ns* circle on straight letters may be followed by the back hook *tion*. Read line 6.

A large final hook on the *n* side of straight letters represents the termination *n-tion*. The first word in line 9 is "pension." Read lines 9, 10 and 11.

The *n* hook and halving principle are conveniently used to represent *not* in phrases. The phrases in line 12 are: Will-not, was-not, did-not, do-not, had-not, have-not, are-not, shall-not, may-not, am-not, cannot.

The final *n* hook logographs in line 13 are: Upon, punish, been, at-length, eternal, circumstance, denomination, providential, denominations, audience, providence.

The logographs in line 14 are: Darken, darkens, religion, general, imagine, religionist, generalized, generalization, gentlemen, gentleman, imagined.

Those in line 15 are: Question, signify, significance, begin, begun, began, organize, organization.

Those in line 16 are: Often, phonography, philanthropy, herein, alone, men, man, human, women, woman, opinion.

WRITING EXERCISE XI.

Copy short-hand Exercise XI. ten times and transcribe it once. Write the words in Exercise XI. in position, unvocalized.

Write the following words in short-hand: Abandoned, abscond, adamant, against, alone, am-not, around, are-not, argument, apprehension, attends, attention, at-length, audience, assign, assigns, assistant. Balanced, been, beans, begin, begun, began, bound, bonds, bounced, brain, brown. Cane, canst, canister, carbon, cannot, chain, circumstance, circumstances, chant, chance, chanced, counts, conscience, compensation, condensation, condensations, combinations, consequence, consequential, comprehension, consternation, Danced, darken, darkness, denomination, denominations, dine, dined, dispensation, dispensations, did-not, donations, dunce. Earn, eternal, event, extend, extension. Fan, find, finds, finish, finance, financial, furnish. Gained, general, generalization, gentlemen, gentleman, gone. Had-not, hence, have-not, hen, heathen, herein, hints, Holland. Imagine, imagined, infant, infantry, irons. Joints, joined, June. Kind, known. Land, line. Man, may-not, men, mind, mine, minds, monument. Nouns. Often, one, ocean, opinion, organize, organization, ordination, outline. Pain, pens, paints, pension, phonography, philanthropy, point, providence, providential, punish, punster, punsters, question. Rain, return, returned, runs, religion, religionist. Shall-not, shown, spinster, spinsters, suspicion, swoon. Then, thin, tent, tendency, thence, town, towns, torment, turn, transition, transitions, transitional. Upon. Vagrancy, vanish, veins, vine. Was-not, will-not, women, woman.

LESSON XII.—CONTRACTIONS, ETC.

AS in long-hand contractions are often used, so it is found that principles of contraction can be employed in short-hand writing, which will materially increase the speed of writing, without sacrificing legibility. These principles need to be understood. As a general rule, many derivatives may be represented by the short-hand form adopted for the root of the word. As derivatives usually form different parts of speech, there is no difficulty to the experienced phonographer in readily deciphering them. A few special directions in regard to abbreviations is all that will be found necessary in this connection.

The letter or letters representing the portion of the prefix preceding *con*, *com*, *cog*, may be joined to the remainder of the word. The words in lines 1 and 2 are: accommodate, accommodation, accompany, incomplete, incompatible, inconceivable, recommend; recommendation, unconcern, unconditional, unconscious, magnanimous, magnificent. Read lines 1 and 2.

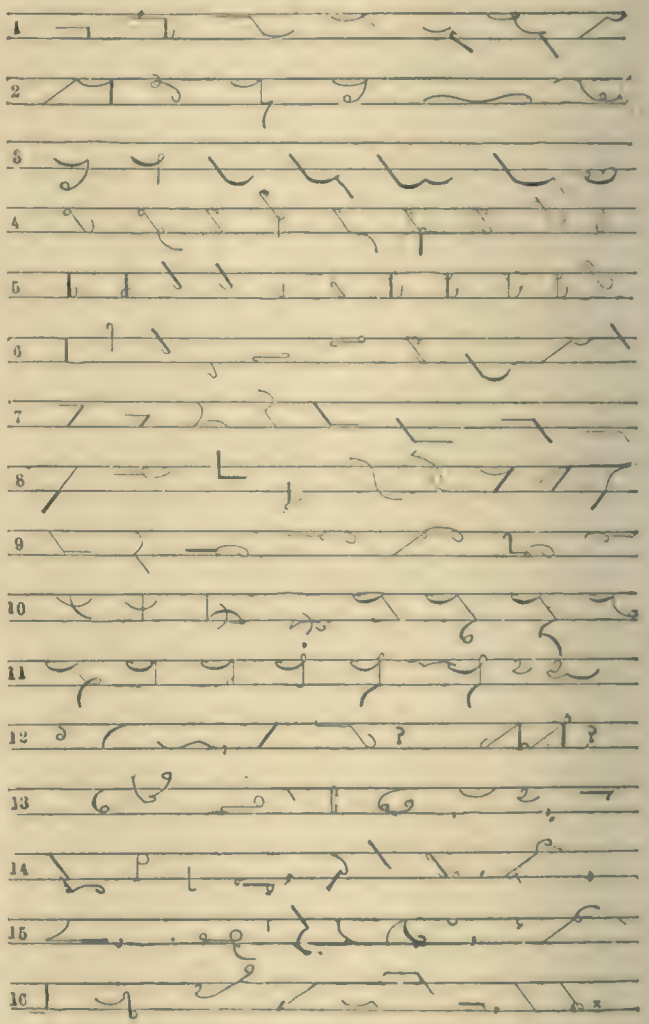
The letter *k* following *ing* may be omitted in many words. The words in line 3 are: Anxious, anxiety, bank, bankable, banking, bankrupt, sanction. Read line 3.

The letter *k* may be omitted in many words commencing with *ex*. The words in line 4 are: Expression, expressive, explain, explicit, explore, explode, explanation, expiration, extension. Read line 4.

The prefixes *con*, *com*, are frequently omitted. The words in line 5 are: Condition, condensation, combine, combination, contend, comprehend, consideration, inconsideration, construction, instruction, completion. Read line 5.

The dot for the affix *ing* is generally omitted. The words in line 6 are: Doing, trying, combining, compounding, craving, crossing, explaining, banking, recommending, buying. Read line 6.

Many words which would make lengthy and difficult forms, if written in full, are represented by two or more consonants of the word. Word signs may be joined either as prefixes or as affixes. The words in line 7 are: Acknowledge, acknowledged, assemble, auspicious, become, to become, cabinet, captain.



Line 8: Change, common-sense, dignity, downward, heretofore, hereafter, knowledge, legible, illegible.

Line 9: Peculiar, especially, examination, cross-examination, re-examination, direct-examination, mistake.

Words and phrases in line 10: Nevertheless, notwithstanding, temperance-society, humane-society, in-reply-to-yours, in-reply-to-your favor, in-reference.

Line 11: In-reference-to-your, inherit, inheritance, in-receipt, in-receipt-of-your, I-am-in-receipt-of-your, short-hand, short-hand-writer.

Line 12: What is your name, age, and occupation? Where do you reside?

Line 13: This finishes a course of 12 lessons in short-hand, giving the

Line 14: Benn Pitman system at a glance, arranged by Brown & Holland,

Line 15: Chicago, and successfully taught by them for more than ten years, with the result of

Line 16: educating hundreds of short-hand writers, who are now occupying good, paying positions.

Read lines 7 to 16.

THE LOISETTE MEMORY SYSTEM.

The Art of Never Forgetting.

SO MUCH has been said about the Loisette memory system, the art has been so widely advertised, and so carefully guarded from all the profane who do not send five or many dollars to the Professor, that a few pages showing how every man may be his own Loisette, may be both interesting and valuable.

In the first place, the system is a good one, and well worth the labor of mastering, and if the directions are implicitly followed there can be no doubt that the memory will be greatly strengthened and improved, and that mnemonic feats otherwise impossible may be easily performed. Loisette, however, is not an inventor but an introducer. He stands in the same relation to Dr. Pick that the retail dealer holds to the manufacturer: the one produced the article; the other brings it to the public. Even this statement is not quite fair to Loisette, for he has brought much practical common sense to bear upon Pick's system, and, in preparing the new art of mnemonics for the market, in many ways he has made it his own.

If each man would reflect upon the method by which he himself remembers things, he would find his hand upon the key of the whole mystery. For instance, the author was once trying to remember the word *blythe*. There occurred to my mind the words "Bellman," "Belle," and then the verse:

> "—— the peasant upward climbing
> Hears the bells of *Buloss* chiming."

"Barcarole," "Barrack," and so on until finally the word "blythe" presented itself with a strange insistance, long after I had ceased trying to recall it.

On another occasion when trying to recall the name "Richardson" I got the words "hayrick," "Robertson," "Randallstown," and finally "wealthy," from which, naturally, I got "rich" and "Richardson" almost in a breath.

Still another example: trying to recall the name of an old schoolmate, "Grady," I got "Brady," "grave," "gaseous," "gastronome," "gracious," and I finally abandoned the attempt, simply saying to myself that it began with a "G," and there was an "a" sound after it. The next morning, when thinking of something entirely different, this name "Grady" came up in my mind with as much distinctness as though someone had whispered it in my ear. This remembering was done without any conscious effort on my part, and was evidently the result of the exertion made the day before when the mnemonic processes were put to work. Every reader must have had a similar experience

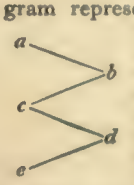
which he can recall, and which will fall in line with the examples given.

It follows, then, that when we endeavor, without the aid of any system, to recall a forgotten fact or name, our memory presents to us words of similar sound or meaning in its journey toward the goal to which we have started it. This goes to show that our ideas are arranged in groups in whatever secret cavity or recess of the brain they occupy, and that the arrangement is one not alphabetical exactly, and not entirely by meaning, but after some fashion partaking of both.

If you are looking for the word "meadow" you may reach "middle" before you come to it, or "Mexico," or many words beginning with the "m" sound, or containing the "dow," as "window," or "dough," or you may get "field" or "farm"—but you are on the right track, and if you do not interfere with your intellectual process you will finally come to the idea which you are seeking.

How often have you heard people say, "I forgot his name, it is something like Beadle or Beagle—at any rate it begins with a B." Every one of these were unconscious Loisettians, and they were practicing blindly, and without proper method or direction, the excellent system which he teaches. The thing, then, to do—and it is the final and simple truth which Loisette teaches—is to travel over this ground in the other direction—to cement the fact which you wish to remember to some other fact or word which you know will be brought out by the implied conditions—and thus you will always be able to travel from your given starting point to the thing which you wish to call to mind.

To illustrate: let the broken line in the annexed diagram represent a train of thought. If we connect the idea "*a*" with "*e*" through the steps *b*, *c* and *d*, the tendency of the mind ever afterwards will be to get to *e* from *a* that way, or from any of the intermediates that way. It seems as though a channel were cut in our mind-stuff along which the memory flows. How to make it flow this way will be seen later on. Loisette, in common with all the mnemonic teachers, uses the old device of representing numbers by letters—and as this is the first and easiest step in the art, this seems to be the most logical place to introduce the accepted equivalents of the Arabic numerals:



0 is always represented by *s*, *z* or *c* soft.
1 is always represented by *t*, *th* or *d*.
2 is always represented by *n*.
3 is always represented by *m*.
4 is always represented by *r*.
5 is always represented by *l*.
6 is always represented by *sh*, *j*, *ch* soft or *g* soft.
7 is always represented by *g* hard, *k*, *c* hard, *q* or final *ng*.
8 is always represented by *f* or *v*.
9 is always represented by *p* or *b*.

All the other letters are used simply to fill up. Double letters in a word count only as one. In fact the system goes by sound, not by spelling—for instance "this" or "dizzy" would stand for *ten*; "catch" or "gush" would stand for 76, and the only difficulty is to make some word or phrase which will contain only the significant letters in the proper order, filled out with non-significant into some guise of meaning or intelligibility.* Suppose you wished to get some phrase or word that would express the number 3685, you arrange the letters this way:

	3	⌒	6	⌒	8	⌒	5
a e i o u h w x y	m	a e i o u h w x y	sh j ch g	a e i o u h w x y	f v	a e i o u h w x y	l

You can make out "image of law," "my shuffle," "matchville," etc., etc., as far as you like to work it out.

Now, suppose you wish to memorize the fact that $1,000,000 in gold weighs 3,685 pounds, you go about it in this way, and here is the kernel and crux of Loisette's system:

"How much does $1,000,000 in gold weigh?"
"Weigh—scales."
"Scales—statue of Justice."
"Statue of Justice—*image of law*."

The process is simplicity itself. The thing you wish to recall, and that you fear to forget, is the weight; consequently you cement your chain of suggestion to the idea which is most prominent in your mental question. What do you weigh with? Scales. What does the mental picture of scales suggest? The statue of Justice, blindfolded and weighing out award and punishment to man. Finally, what is this statue of Justice but the image of law? and the words "image of law," translated back from the significant letters *m*, *g* soft, *f* and *l*, give you 3–6–8–5, the number of pounds in $1,000,000 in gold. You bind together in your mind each separate step in the journey, the one suggests the other, and you will find, a year from now, that the fact will be as fresh in your memory as it is

* You can remember the equivalents by noting the fact that *s* is the first letter of "zero," and *c* of "cipher," *t* has but one stroke, *n* has two, *m* three. The script *f* is very like 8, the script *p* like 9; *r* is the last letter of four, *l* is the roman numeral for *fifty*, which suggests *five*. The others may be retained as memorizing these two nonsense lines:

Six *sh*y Jewesses *ch*ase George
Seven *G*reat *K*ings *c*ame *q*uarrel*ing*.

to-day. You cannot lose it. It is chained to you by an unbreakable mnemonic tie. Mark, that it is not claimed that "weight" will of itself suggest "scales" and "scales" "statue of Justice," etc., but that, having once passed your attention up and down that ladder of ideas, your mental tendency will be to take the same route, and get to the same goal again and again. Indeed, beginning with the weight of $1,000,000, "image of law" will turn up in your mind without your consciousness of any intermediate station on the way, after some iteration and reiteration of the original chain.

Again, so as to fasten the process in the reader's mind even more firmly, suppose that it were desired to fix the date of the battle of Hastings (A. D. 1066) in the memory; 1066 may be represented by the words "the wise judge" ($th = 1, s = 0, j = 6, dg = 6$; the others are non-significants); a chain might be made thus:

Battle of Hastings—arbitrament of war.
Arbitrament of war—arbitration.
Arbitration—judgment.
Judgment—the wise judge.

Make mental pictures, connect ideas, repeat words and sounds, go about it any way you please, so that you will form a mental habit of connecting the "battle of Hastings" with the idea of "arbitrament of war," and so on for the other links in the chain, and the work is done.

Loisette makes the beginning of his system unnecessarily difficult, to say nothing of his illogical arrangement in the grammar of the art of memory, which he makes the first of his lessons. He analyzes suggestion into—

1. Inclusion.
2. Exclusion.
3. Concurrence.

All of which looks very scientific and orderly, but is really misleading, and badly named. The truth is that one idea will suggest another.

1. By likeness or opposition of meaning, as "house" suggests "room" or "door," etc.; or "white" suggests "black," "cruel," "kind," etc.

2. By likeness of sound, as "harrow" and "barrow"; "Henry" and "Hennepin."

3. By mental juxtaposition, a peculiarity different in each person, and depending upon each one's own experiences. Thus, "St. Charles" suggests "railway bridge" to me, because I was vividly impressed by the breaking of the Wabash bridge at that point. "Stable" and "broken leg" come near each other in my experience, so do "cow" and "shot-gun" and "licking."

Out of these three sorts of suggestion it is possible to get from any one fact to any other in a chain certain and safe, along which the mind may be depended upon afterwards always to follow.

The chain is, of course, by no means all. Its making and its binding must be accompanied by a vivid, methodically directed attention, which turns all the mental light gettable in a focus upon the subject passing across the mind's screen. Before Loisette was thought of this was known. In the old times in England, in order to impress upon the mind of the rising generation the parish boundaries in the rural districts, the boys were taken to each of the landmarks in succession, the position and bearings of each pointed out carefully, and, in order to deepen the impression, the young people were then and there vigorously thrashed, a mechanical method of attracting the attention which was said never to have failed. This system has had its supporters in many of the old-fashioned schools, and there are men who will read these lines who can recall, with an itching sense of vivid expression, the 144 lickings which were said to go with the multiplication table.

In default of a thrashing, however, the student must cultivate as best he can an intense fixity of perception upon every fact or word or date that he wishes to make permanently his own. It is easy. It is a matter of habit. If you will you can photograph an idea upon your cerebral gelatine so that neither years nor events will blot it out or overlay it. You must be clearly and distinctly aware of the thing you are putting into your mental treasure-house, and drastically certain of the cord by which you have tied it to some other thing of which you are sure. Unless it is worth your while to do this, you might as well abandon any hope of mnemonic improvement, which will not come without the hardest kind of hard work, although it is work that will grow constantly easier with practice and reiteration.

You need, then:
1. Methodic suggestion.
2. Methodic attention.
3. Methodic reiteration.

And this is all there is to Loisette, and a great deal it is. Two of them will not do without the third. You do not know how many steps there are from your hall door to your bed-room, though you have attended to and often reiterated the journey. But if there are twenty of them, and you have once bound the word "nice," or "nose," or "news," or "hyenas" to the fact of the stairway, you could never forget it.

The Professor makes a point, and very wisely, of the importance of working through some established chain, so that the whole may be carried away in the mind—not alone for the value of the facts so bound together, but for the mental discipline so afforded.

Here, then, is the "President Series," which contains the name and the date of inauguration of each president from Washington to Cleveland. The manner in which it is to be mastered is this: Beginning at the top, try to find in your mind some connection between each word and the one following it. See how you can at some future time make one suggest the next, either by suggestion of sound or sense, or by mental juxtaposition. When you have found this, dwell on it attentively a moment or two. Pass it backward and forward before you, and then go on to the next step.

The chain runs thus, the names of the presidents being in small caps, the date words in italics:

President	Chosen as the first word as the one most apt to occur to the mind of any one wishing to repeat the names of the presidents.
Dentists	*Presi**dent*** and ***dent**ist.*
Draw	What does a dentist do?
To give up	When something is drawn from one it is given up. This is a date phrase meaning 1789.
Self-sacrifice	There is an association of thought between giving up and self-sacrifice.
WASHINGTON	Associate the quality of self-sacrifice with Washington's character.
Morning wash	*Wash*ington and *wash*.
Dew	Early wetness and dew.
Flower beds	Dew and flowers.
Took a bouquet	Flowers and bouquet. Date phrase (1797).
Garden	Bouquet and garden.
Eden	The first garden.
Adam	Juxtaposition of thought.
ADAMS	Suggestion by sound.
Fall	Juxtaposition of thought.
Failure	Fall and failure.
Deficit	Upon a failure there is usually a deficit. Date word (1801).
Debt	The consequence of a deficit.
Bonds	Debt and bonds.
Confederate bonds	Suggestion by meaning.
Jefferson Davis	Juxtaposition of thought.
JEFFERSON.	

Now follow out the rest for yourself, taking about ten at a time, and binding those you do last to those you have done before each time, before attacking the next bunch.

1	2	3
JEFFERSON	*the fraud*	*the heavy shell*
Judge Jeffreys	painted clay	mollusk
bloody assize	baked clay	unfamiliar word
bereavement	tiles	dictionary
too heavy a job	TYLER	Johnson's
parental grief	Wat Tyler	JOHNSON
mad son	poll tax	son
MADISON	compulsory	bad son
Madeira	*free will*	dishonest boy
first-rate wine	free offering	*thievish boy*
frustrating	burnt offering	take
defeating	poker	give
feet	POLK	GRANT
toe the line	end of dance	award
row	termination "ly"	school premium
MONROE	*adverb*	examination
row	part of speech	cramming
boat	part of a man	*fagging*
steamer	TAYLOR	laborer
the funnel	measurer	hay field
windpipe	theodolite	HAYES
throat	*Theophilus*	hazy
quinzy	fill us	clear
QUINCY ADAMS	FILLMORE	*vivid*
quince	more fuel	brightly lighted
fine fruit	*the flame*	camp fire
the fine boy	flambeau	war field
sailor boy	bow	GARFIELD
sailor	arrow	Guiteau
jack tar	PIERCE	murderer
JACKSON	hurt	prisoner
stone wall	*feeling*	prison fare
indomitable	wound	*half fed*
tough make	soldier	well fed
oaken furniture	cannon	well read
bureau	BUCHANAN	author
VAN BUREN	rebuke	ARTHUR
rent	official censure	round table
side-splitting	*to officiate*	tea table
divert	wedding	tea cup
annoy	linked	*half full*
harassing	LINCOLN	divide
HARRISON	link	cleave
Old Harry	stroll	CLEVELAND
the tempter	sea shore	

It will be noted that some of the date words, as "free will," only give three figures of the date, 845; but it is to be supposed that if the student knows that many figures in the date of Polk's inauguration he can guess the other one.

The curious thing about this system will now become apparent. If the reader has learned the series so that he can say it down, from President to Cleveland, he can with no effort, and without any further preparation, say it *backwards* from Cleveland up to the commencement! There could be no better proof that this is the natural mnemonic system. It proves itself by its works.

The series should be repeated backwards and forwards every day for a month, and it should be supplemented by a series of the reader's own making, and by this one, which gives the numbers from 0 to 100, and which must be chained together before they can be learned.

	0—hoes	
1—wheat	34—mare	67—[illegible]
2—hen	35—mill	68—[illegible]
3—home	36—image	69—ship
4—hair	37—mag	70—eggs
5—oil	38—naff	71—[illegible]
6—shoe	39—mob	72—[illegible]
7—hook	40—race	73—comb
8—off	41—hart	74—hawker
9—bee	42—horn	75—coal
10—daisy	43—army	76—cage
11—tooth	44—warrior	77—cake
12—dine	45—royal	78—coffee
13—time	46—arch	79—cuffe
14—tower	47—rock	80—vase
15—dell	48—wharf	81—feet
16—ditch	49—rope	82—vein
17—duck	50—wheels	83—fame
18—dove	51—lad	84—fire
19—tabby	52—lion	85—vial
20—hyenas	53—lamb	86—fish
21—hand	54—liar	87—fog
22—nun	55—lily	88—fife
23—name	56—lodge	89—fob
24—owner	57—lake	90—pies
25—nail	58—leaf	91—putty
26—hinge	59—elbow	92—pane
27—inkle	60—chess	93—beaub
28—knife	61—cheat	94—pier
29—knob	62—chain	95—bell
30—muse	63—sham	96—peach
31—mayday	64—chair	97—book
32—hymen	65—jail	98—beef
33—mama	66—judge	99—pope
	100—diocese	

By the use of this table, which should be committed as thoroughly as the President series, so that it can be repeated backwards and forwards, any date, figure or number can be at once constructed, and bound by the usual chain to the fact which you wish it to accompany.

When the student wishes to go farther and attack larger problems than the simple binding of two facts together, there is little in Loisette's system that is new, although there is much that is good. If it is a book that is to be learned as one would prepare for an examination, each chapter is to be considered separately. Of each a *precis* is to be written in which the writer must exercise all of his ingenuity to reduce the matter in hand to its final skeleton of fact. This he is to commit to memory both by the use of the chain and the old system of interrogation. Suppose after much labor through a wide space of language one boils a chapter or an event down to the final irreducible sediment: "Magna Charta was exacted by the barons from King John at Runnymede."

You must now turn this statement this way and that way; asking yourself about it every possible and impossible question, gravely considering the answers, and, if you find any part of it especially difficult to remember, chaining it to the question which will bring it out. Thus, "What was exacted by the barons from King John at Runnymede?" "Magna Charta." "By whom was Magna Charta exacted from King John at Runnymede?" "By the barons." "From whom was," etc., etc.? "King John." "From what king," etc., etc.? "King John." "Where was Magna Charta," etc., etc.? "At Runnymede."

And so on and so on, as long as your ingenuity can suggest questions to ask, or points of view from which to

consider the statement. Your mind will be finally saturated with the information; and prepared to spill it out at the first squeeze of the examiner. This, however, is not new. It was taught in the schools hundreds of years befor Loisette was born. Old newspaper men will recall in connection with it Horace Greeley's statement that the test of a news item was the clear and satisfactory manner in which a report answered the interrogatories, "What?" "When?" "Where?" "Who?" "Why?"

In the same way Loisette advises the learning of poetry, *e. g.*,

"The Assyrian came down like a wolf on the fold."

"Who came down?"
"How did the Assyrian come down?"
"Like what animal did?" etc.

And so on and so on, until the verses are exhausted of every scrap of information to be had out of them by the most assiduous cross-examination.

Whatever the reader may think of the availibility or value of this part of the system, there are so many easily applicable tests of the worth of much that Loisette has done, that it may be taken with the rest.

Few people, to give an easy example, can remember the value of π—the ratio between the circumference and the diameter of the circle—beyond four places of decimals, or at most five—3. 141592+. Here is the value to 108 decimal places:

3· 14159265·3589793238·4626433832·7950288419·716939937
5·10582097494459230781·6406286208·9986280348·253421
1706·7982148086+

By a very simple application of the numerical letter values, these 108 decimal places can be carried in the mind and recalled about as fast as you can write them down. All that is to be done is to memorize these nonsense lines:

Mother Day will by any shawl.
My love pick up my new muff.
A Russian jeer may move a woman.
Cables enough for Utopia.
Get a cheap ham pie by my cooley.
The slave knows a bigger ape.
I rarely hop on my sick foot.
Cheer a sage in a fashion safe.
A baby fish now views my wharf.
Annually Mary Ann did kiss a jay.
A cabby found a rough savage.

Now translate each significant into its proper value and you have the task accomplished. "Mother Day," $m = 3$, $th = 1$, $r = 4$, $d = 1$, and so on. Learn the lines one at a time by the method of interrogatories. "Who will buy any shawl?"—"Which Mrs. Day will buy a shawl?" "Is Mother Day particular about the sort of shawl she will buy?" "Has she bought a shawl?" etc., etc. Then cement the end of each line to the beginning of the next one, thus, "Shawl"—"warm garment"—"warmth"—"love"—"my love," and go on as before. Stupid as the work may seem to you, you can memorize the figures in fifteen minutes this way so that you will not forget them in fifteen years. Similarly you can take Haydn's Dictionary of Dates and turn fact after fact into nonsense lines like these which you cannot lose.

And this ought to be enough to show anybody the whole art. If you look back across the sands of time and find out that it is that ridiculous old "Thirty days hath September" which comes to you when you are trying to think of the length of October—if you can quote your old prosody,

"O datur ambiguis," etc.,

with much more certainty than you can serve up your Horace; if, in fine, jingles and alliterations, wise and otherwise, have stayed with you, while solid and serviceable information has faded away, you may be certain that here is the key to the enigma of memory.

You can apply it yourself in a hundred ways. If you wish to clinch in your mind the fact that Mr. Love lives at 485 Dearborn Street, what is more easy than to turn 485 into the word "rifle" and chain the ideas together, say thus: "Love—happiness—good time—picnic—forest—wood rangers—range—rifle range—*rifle*—fine weapon—costly weapon—dearly bought—DEARBORN."

Or if you wish to remember Mr. Bowman's name, and you notice he has a mole on his face which is apt to attract your attention when you next see him, cement the ideas thus: "Mole, mark, target, archer, Bowman."

THE ART OF BOOK-KEEPING.

SINGLE AND DOUBLE ENTRY.

The Two Systems Compared Side by Side.

BOOK-KEEPING is the art of recording business transactions in a systematic manner, so that the results will be readily apparent, and so that the condition of the business, as to its resources and liabilities, losses and gains, may be ascertained with ease and exactness. A knowledge of the science of accounts is necessary to all men, no matter in what business they may be engaged. It is especially valuable as it is demanded in every position in life. There are two systems of Book-keeping, *Single Entry* and *Double Entry*. The former is mainly used where transactions are limited to the business of retail dealers, and where it is only necessary to record the details of purchases and sales for cash or credit. A single entry of the account in the Ledger is ample for the purpose of a record. But where business is done on a large scale, such as pertains to a wholesale house, it becomes necessary to have recourse to the more satisfactory though more intricate system of Double Entry. Instead of making only one entry of a transaction, as in the simpler method, two are made—first on the Dr. or Cr. side of one account, and again on the contrary side of some other account. The advantage of this double entry is that the merchant can always inform himself of the exact state of each account, and not alone of the goods sold, but of what he has on hand, without the inconvenience of often taking an account of stock. Then again it is a check by which errors may be easily detected.

Books Used in Single Entry.

In Single Entry only three books are necessary—Cash-Book, Day-Book and Ledger. All moneys received or paid out are entered in the Cash-Book. If goods are purchased for cash, the money being paid away, the entry is made on the Cr. side, "By Merchandise per Day-Book." The cash should be balanced as soon after the last day of the month as possible.

A record of the transactions of each and every day in the order in which they take place should be entered in the Day-Book. The name

of the customer is entered in full, with the term Dr. or Cr. annexed, according to the nature of the transaction—Dr. when goods are sold to him, and Cr. when goods are bought or received from him. The date of each entry must be inserted, and the names and addresses of customers written in full. Goods purchased or received on credit are entered under Cr., and the entry preceded by the word "By." When goods are sold on credit add "Dr." to the person's name and residence, and begin the entry with the word "To." When abatement for discount or short measure is allowed by you, enter the person Cr., and when similar allowance is made to you, enter the person Dr.

Every transaction is entered in the Ledger from all other books, with certain references, indicating the sources from which the items are derived. Each customer's name has a certain space allotted to it, in which the goods sold appear on the Dr. side and the cash received on the Cr. side.

Books Used in Double Entry.

In Double Entry the principal books used are the Day-Book, Cash-Book, Journal and Ledger. The first-named book should contain the principal transactions occurring in the various stages of business. Entries should be fully intelligible, from the fact that it contains the greater portion of the matter from which the other books are made. All transactions in which cash has any part must be entered in the Cash-Book at the time they occur, in the same manner as other entries are made in the Day-Book. In the Journal are entered and methodically arranged the scattered items of the Cash-Book and Day-Book.

The Ledger is the most important of all the books in the series, and into it are transferred the entries from the Journal, under their separate heads. To facilitate the finding of particular accounts, an index-book is used in connection with the Ledger, in which the names are alphabetically arranged, with the number of the page of the Ledger opposite each. The very important fact must not be lost sight of that every item is entered twice, once on the Dr. side of one account, and once on the Cr. side of another account.

How Entries are Made.

If a person buys merchandise to the amount of $1,000, for which he pays cash, the entry would be made as follows:

Merchandise, Dr.		$1,000 00	
	To Cash		$1,000 00

The first entry shows what the merchandise has cost him, and the second shows that he has paid away cash amounting to $1,000. Accounts are opened with Cash, Merchandise, Bills Payable, Bills Receivable, Interest, Commission, etc., in the same manner as personal accounts are treated in the Single Entry Ledger, all items received or disbursed being debited and credited to their account. To make it still plainer, suppose George Smith sells a quantity of goods to Peter Aylmer, and charges him $50 commission; the entry would be made in this fashion:

Peter Aylmer, Dr.		$50 00	
	To Commission		$50 00

If the same party owed Aylmer the same sum of money and gave him a note for the amount with $5.00 interest added, it would be entered thus:

Sundries	To Bills Payable		$55 00
Peter Aylmer		$50 00	
Interest		5.00	

There are two styles of accounts, Real and Representative. The latter class embraces such as Commission, Interest, etc., and should be debited and credited for what they cost or produce. By doing this, when the books are balanced a person can tell at once exactly what these representative accounts have cost or produced.

How to Detect Errors.

It is customary among merchants to have a set time for the adjustment of their account

books, and for this it is necessary, before taking a general balance, to prove the posting of the Ledger by taking a trial balance. To do this the accountant adds all the Dr. sides into one sum, and all the Cr. sides into another. When the Ledger has been correctly posted these two sums will be equal; but if they do not balance the cause of the difference must be looked up at once. Sometimes a sum is entered to a different account than the one to which it belongs, but on the same side, and the sums will still agree. To find such an error as this, the Journal and Ledger should be compared by two persons, the one reading from the Journal, and the other scanning the accounts in the Ledger, and checking them when correct. When a Journal entry is omitted or twice entered in the Ledger, the summing up of the latter will not show the error. To find it, however, it is necessary to foot up the Cash received, Cash paid, Bills Receivable, Bills Payable and Day-Book entries, and the sum will always agree with that side of the Ledger which is correct, leading easily to the detection of the error.

How Errors are Made.

Very frequently errors are made in journalizing the subsidiary books and in posting the Ledger, such as debiting or crediting one person or account in place of another; omitting entries; making the sum too large or too small, etc. Immediate attention should be paid to errors of this kind, not by an erasure or interlineation, but an explanatory entry in the Day-Book. That is then to be journalized like a regular transaction and posted in the Ledger. For instance, in the Ledger of May 10th, Richard Klotz is debited to Bills Payable, but on the 30th of May it is found that this entry should have been posted to John Dobbins' account. John Dobbins is therefore debited to Richard Klotz in the Day-Book, and the mistake is thereby explained. If any account has been overposted, it must be either debited or credited for the excess; and if it has been underposted, a new entry must be made upon the same side for the deficiency. When an entry has been entirely omitted, it must be made as soon as discovered, mentioning when omitted. When an entry has been posted twice, it may be corrected by entering the amount on the other side, noting the fact of its being twice posted. The greatest care should be exercised in making original entries, as they are the most dangerous of all. Balancing books should not be delayed beyond a specified time, for, the longer the time, the more difficult the correction of an error. Where an account has been underpaid for a year or so the person may have subsequently died, failed, retired from business, or otherwise become inaccessible. Thus a positive loss is sustained which might otherwise have been avoided.

Subsidiary Books.

Among the subsidiary books generally used is the Petty Cash-Book, in which a record is kept of the various charges incurred in trade, too trifling to be entered separately in the Cash-Book. This book is balanced monthly, and the total amount of expenditures transferred to the Cash-Book under the head of Petty Cash. The Bill-Book is used in the same manner in Single and Double Entry. A separate book should be kept for Bills Receivable and Bills Payable. When a note is received it should be immediately entered under the head of Bills Receivable and duly numbered; and when a draft is accepted, or note paid away, it should be entered as Bills Payable.

In some cases merchants keep a Cash account and Bank account separately. Thus, if they have $5,000 on hand in cash and should deposit $1,000 of it in the First National Bank, they would debit or charge the bank with the amount and credit Cash for the amount paid away, and when they draw any portion from the bank they credit the bank with the amount and debit Cash with it; or, if it is paid away to any person, he is charged with it. In large establishments the

Bank account is frequently kept in a separate book.

THE TWO SYSTEMS.

In the following pages are given three sets of accounts, exemplifying thoroughly the theory and practice of Single Entry and Double Entry Book-keeping.

Of the Double Entry sets, the first is a very simple one, and designed to prepare the student for a thorough understanding of the second, in which has been introduced the feature of combining the Journal and Day-Book, and which also presents two methods of closing the Ledger, as will be explained further on.

The Cash-Book, in Double as well as in Single Entry, shows on the debit side all cash received and on the credit side the cash paid out, and the excess of debit consequently shows the exact amount of cash on hand. The form used in both systems is the same, with this exception, that in Double Entry, where the posting is done direct from the Cash-Book, a column is ruled off next to the date column to show the folio of the Ledger. The balances may be brought down weekly, but when the entries are numerous it would be better to balance the Cash account daily. Money received or paid on account is entered in the Cash-Book as well as the Day-Book.

The first and last thing to remember in studying Book-keeping is that

The thing received is Dr.
The thing delivered is Cr.

What you owe is Cr.
What owes you is Dr.

Or,

Debit what costs value.
Credit what produces value.

Book-Keeping by Single Entry.

In the pages immediately following we present to the student a set of books kept by Single Entry.

The Day-Book affords a regular daily history of every transaction, giving details and particulars. The entries in the book are direct and simple, first stating the name of the person to be debited or credited on the Ledger, expressed, respectively, by "Dr." and "Cr.," and giving the consideration and amount. These entries are transferred under the proper heads in the Ledger, which in Single Entry exhibits the relation in which *persons* with whom we deal stand to the business. An account in the Ledger should be transferred to a new folio before it crowds upon the one below it.

The Day-Book and Ledger contain only transactions relating to persons. A prudent business man, however, will feel the necessity of keeping a record of receipts and disbursements of cash, the issue and redemption of his own notes and the receipt and disposition of the notes of others, and for this purpose will keep a Cash-Book and a Bill-Book. The Cash-Book is here given in full. In view of the thorough explanations appended, the form of the auxiliary books is not given.

The words and figures in *italics* would in practice be entered in *red ink*, as illustrated in the Double Entry sets.

SINGLE ENTRY CASH-BOOK.

Dr. *Cash.*

1883.			
Nov.	1	To Charles Evans, invested by him	$ 50 00
"	"	" Thomas Jeffers, " " "	648 08
"	3	" Edgar Hatch, on $	60 00
			758 08
Nov.	5	To Balance on hand from 3d inst.	674 98
"	"	" 1 Bureau, Mahogany Veneered	22 00
"	9	" Bills Receivable, Martin Stevens' Note, Evans' favor.	125 00
"	10	" John Roberts, Arm Chair for Office	5 00
			[illegible]
Nov.	12	To Balance on hand from 10th inst.	648 60
"	"	" 1 Pint of Varnish	50
"	14	" Standing Cupboard	75
"	16	" 1 Reclining Chair	25 00
"	"	" 2 Ottomans	7 00
"	17	" 1 Walnut Bedstead.	4 50
			686 35
Nov.	19	To Balance on hand from 17th inst.	598 23
"	22	" Steamboat Vint Shinkle, part Bill of date	150 00
			748 23
Nov.	26	To Balance on hand from 24th inst.	474 83
"	"	" 2 Mahogany Rocking Chairs Walnut, @ $12.50	25 00
"	"	" 2 Walnut Bedsteads, @ 4.50	9 00
"	"	" 1 Doz. Cane-Seat Walnut Chairs 24.00	
"	"	" 1 Child's High Chair 1.25	
"	"	" " Rocking " 1.25	26 50
"	30	" Edgar Hatch, in full	60 75
"	"	" Repairing Tables	2 38
"	"	" " Chairs	1 62
			602 08
1883.			
Dec.	1	To Balance from Nov. 30th, 1883	471 98

SINGLE ENTRY CASH-BOOK.

Cash. *Cr.*

1883.			
Nov.	2	By C. R. George, Bill of Lumber	$ 75 60
"	3	" Bill of Coal	7 50
"	"	" *Balance in Bank $650, in Safe $24.98*	*674 98*
			758 08
Nov.	5	By Joseph Maynes, Bricklayer, Repairs to House	51 50
"	"	" James Wright, Painting House	22 00
"	8	" Samuel Hudson, in full of ⅛	67 00
"	"	" One pair of Pinchers	38
"	10	" Wages paid hands	57 50
"	"	" *Balance in Bank $620, in Safe $28.60*	*648 60*
			826 98
Nov.	16	By Samuel Hudson, part Bill of Paints, etc.	50 00
"	17	" Wages paid hands	38 12
"	"	" *Balance in Bank $525.50, in Safe $72.73*	*598 23*
			686 35
Nov.	22	By Bills Payable, Evans' Note, Smith's favor, $200.00	
		Less Discount from date to Jan. 6th, 1883 1.50	198 50
"	23	" Charles Evans on ⅛	10 00
"	"	" Bill of Varnish	13 50
"	"	" Gas Bill	14 25
"	24	" Drayage of Furniture	50
"	"	" Wages paid hands	36 65
"	"	" *Balance in Bank $470, in Safe $4.83*	*474 83*
			748 23
Nov.	27	By Bill of Veneering	25 60
"	29	" Thomas Jeffers, on ⅛	25 00
"	"	" Glazing one Light of Glass	25
"	30	" Rent of Shop, one month	40 00
"	"	" Wages paid hands	39 25
"	"	" *Balance in Bank $400.50, in Safe $11.48*	*471 98*
			602 08

SINGLE ENTRY DAY-BOOK.

St. Louis, November 1st, 1883.

L.F.				
	Charles Evans, Cabinet-Maker, associates with himself Thomas Jeffers — Evans transferring to the firm such portion of his resources and liabilities as is mutually agreed upon, and Jeffers investing their equivalent in Cash. The parties are to share alike in gains and losses.			
1	**Charles Evans,**	**Cr.**		
	By Cash invested		50.00	
	" Sundry Notes he holds against others, per B.-B.		350.00	
	" Bal. of Edgar Hatch's $		55.75	
	" " Maurice Perry's $		37.40	
	" Materials and Unfinished work, as per Inventory		356.50	
	" Stock of Furniture, " "		210.43	
	" " Tools, " "		151.20	1,211 28
		Dr.		
1	To Sundry Notes he owes, per B.-B.		421.00	
	" Bal. due Samuel Hudson, on $		67.00	
	" " Richard Kelso & Co., on $		75.20	563 20
1	**Thomas Jeffers,**	**Cr.**		
	By Cash invested			648 08
	1st			
1	**Edgar Hatch,**	**Dr.**		
	To Bal. of his $ due Charles Evans			55 75
	"			
1	**Maurice Perry,**	**Dr.**		
	To Bal. of his $ due Charles Evans			37 40
	"			
1	**Samuel Hudson,**	**Cr.**		
	By Bal. of Charles Evans' $ assumed by us			67 00
	"			
1	**Richard Kelso & Co.,**	**Cr.**		
	By Bal. of Charles Evans' $ assumed by us			75 20
	3d			
1	**Edgar Hatch,**	**Dr.**		
	To 1 Hair Cloth Mahogany Sofa			20 00
		Cr.		
1	By Cash on $			60 00
	5th			
1	**Peter Fowler,**	**Dr.**		
	To 9 Mahogany Chairs, Cane-Seats, @ $1.25		11.25	
	" 6 " " Hair-Cloth Seats, @ 3.00		18.00	
	" 2 Cherry Dining Tables, @ 6.00		[illegible]	
	" 1 Maple French Bedstead		4.25	
	" 1 " Low-Post Bedstead		2.75	48 25
	"			
2	**Osmond Ray,**	**Dr.**		
	To 1 doz. Windsor Chairs		$12.00	
	" ½ " " "		@ $15.00 7.50	
	" ½ " " "		" 10.00 5.00	
	" 1 Spring-Seat Black Walnut Sofa		21.00	45 50
	8th			
1	**Samuel Hudson,**	**Dr.**		
	To Cash in full			67 00
	9th			
1	**Richard Kelso & Co.,**	**Cr.**		
	By Bill of Lumber			135 00
		Dr.		
1	To our Note @ 30 days in full of their $			210 20
	"			
1	**Edgar Hatch,**	**Dr.**		
	To 1 Ash Footstool			1 50
	"			
2	**Andrew Cummins,**	**Dr.**		
	To 3 Patent Office Chairs @ 5.00			15 00

SINGLE ENTRY DAY-BOOK.

St. Louis, November 12th, 1883.

L.F.				
1	Edgar Hatch,		Dr.	
	To 1 Red Walnut Dining Table			40 00
	13th			
2	Francis Watkins,		Dr.	
	To 2 Children's Low Chairs, @ $2.00			4 00
	"			
2	John A. Crowe,		Dr.	
	To 3 doz. Windsor Chairs, @ $11.00		$33.00	
	" 1 Rocking Chair		9.00	
				42 00
	15th			
1	Edgar Hatch,		Dr.	
	To ⅝ of Osmond Ray, assumed by him			45 50
	"			
2	Osmond Ray,		Cr.	
	By transfer of ⅝ to Edgar Hatch			45 50
	16th			
1	Samuel Hudson,		Cr.	
	By Bill of Paints, Varnish, etc.			175 26
	Dr.			
1	To Cash in part			50 00
	"			
2	Francis Watkins,		Dr.	
	To 1 Walnut Book-case			15 00
	19th			
2	Edgar Hatch,		Dr.	
	To 1 Hat-stand, Mahogany Veneered			10 00
	20th			
2	Francis Watkins,		Dr.	
	To Varnishing 1 Table			50
	22d			
2	Steamboat Vint Shinkle,		Dr.	
	To 3 Mahogany Sofas,	@ $15.00	$45.00	
	" 2 " Tete-a-Tetes,	" 16.00	32.00	
	" 1 " Rocking Chair		12.00	
	" 4 " Arm Chairs,	" 8.00	32.00	
	" 2 doz. " Chairs,	" 30.00	60.00	
	" 14 Cherry Wash-stands,	" 2.00	28.00	
	" 14 Looking-glasses,	" 2.00	28.00	
				237 00
	Cr.			
2	By Cash in part payment			150 00
	23d			
1	Charles Evans,		Dr.	
	To Cash on ⅘			10 00
	"			
2	A. E. Ford,		Cr.	
	By Bill of Lumber			96 40
	26th			
2	Edgar Hatch,		Dr.	
	To 1 Mahogany Bureau, with Glass			25 00
	29th			
1	Thomas Jeffers,		Dr.	
	To Cash on ⅝			25 00
	"			
2	John A. Crowe,		Dr.	
	To 1 Mahogany Bureau			19 00
	30th			
2	Francis Watkins,		Dr.	
	To 1 Black Walnut Centre Table			15 00
	"			
2	John A. Crowe,		Cr.	
	By 1 Mahogany Bureau, returned because it was too large for the room			19 00
	"			
2	Edgar Hatch,		Cr.	
	By his Note @ 60 days		$75.00	
	" Cash to Bal. ⅝		62.75	
				137 75

SINGLE ENTRY LEDGER.

Dr. *Charles Evans.* *Cr.*

1883.						1883.					
Nov.	1	To Sundries	1	563 20		Nov.	1	By Sundries	1	1,211 28	
"	"	" *Net Capital at starting*		648 08							
				1,211 28						1,211 28	
1883.						1883.					
Nov.	23	To Cash on ℔	2	10 00		Nov.	1	By Net Cap. brought down			648 08
"	30	" *Net Cap. to New ℔*		778 38		"	30	" ½ Net Gains			140 30
				788 38							788 38
						1883.					
						Dec.	1	By Net Cap. from old ℔			778 38

Dr. *Thomas Jeffers.* *Cr.*

1883.						1883.					
Nov.	29	To Cash on ℔	2	25 00		Nov.	1	By Cash Invested	1	648 08	
"	30	" *Net Cap. to New ℔*		763 38		"		" ½ Net Gains			140 30
				788 38							788 38
						1883.					
						Dec.	1	By Net Cap. from old ℔			763 38

Dr. *Edgar Hatch.* *Cr.*

1883.						1883.					
Nov.	1	To Charles Evans	1	55 75		Nov.	3	By Cash	1	60 00	
"		" Sofa	1	20 00							
"	9	" Footstool	1	1 50							
"	12	" Dining Table	2	40 00							
"	15	" Osmond Ray	2	45 50							
		Am't to folio	2	102 75				*Am't to folio*	1	60 00	

Dr. *Maurice Perry.* *Cr.*

1883.											
Nov.	1	To Charles Evans	1	37 40							

Dr. *Samuel Hudson.* *Cr.*

1883.						1883.					
Nov.	8	To Cash	1	67 00		Nov.	1	By Charles Evans	1	67 00	
1883.						1883.					
Nov.	16	To Cash	2	50 00		Nov.	16	By Bill of date	2	175 26	
"	30	" *Bal. to New ℔*		125 26							175 26
				175 26		1883.					
						Dec.	1	By Bal. from Old ℔			125 26

Dr. *Richard Kelso & Co.* *Cr.*

1883.						1883.					
Nov.	9	To Bills Payable	1	210 20		Nov.	1	By Charles Evans	1	75 20	
						"	9	" Bill of date	1	135 00	
				210 20						210 20	

Dr. *Peter Fowler.* *Cr.*

1883.											
Nov.	5	To Sundries	1	48 25							

SINGLE ENTRY LEDGER.

Dr. *Osmond Ray.* *Cr.*

1883.					1883.				
Nov.	5	To Sundries	1	45 50	Nov.	15	By Edgar Hatch	2	45 50

Dr. *Andrew Cummins.* *Cr.*

1883.				
Nov.	9	To Office Chairs	1	15 00

Dr. *Francis Watkins.* *Cr.*

1883.					1883.				
Nov.	13	To Children's Chairs	2	4 00	Nov.	20	By Bal. to folio	2	19 50
"	16	" Book-case	2	15 00					
"	20	" Varnishing	2	50					
				19 50					19 50

Dr. *John A. Crowe.* *Cr.*

1883.					1883.				
Nov.	13	To Sundries	2	42 00	Nov.	30	By Bureau	2	19 00
"	29	" Bureau	2	19 00	"	31	" *Bal. to New* $		42 00
				61 00					61 00
1883.									
Dec.	1	To Bal. from Old $		42 00					

Dr. *Edgar Hatch.* *Cr.*

1883.					1883.				
Nov.	15	To Am't from folio	1	162 75	Nov.	15	By Am't from folio	1	60 00
"	19	" Hat-stand	2	10 00	"	30	" Sundries	2	137 75
"	26	" Bureau	2	25 00					
				197 75					197 75

Dr. *Steamboat Vint Shinkle.* *Cr.*

1883.					1883.				
Nov.	22	To Sundrjes	2	237 00	Nov.	22	By Cash	2	150 00
					"	30	" *Bal. to New* $		87 00
				237 00					237 00
1883.									
Dec.	1	To Bal. from Old $		87 00					

Dr. *A. E. Ford.* *Cr.*

					1883.				
					Nov.	23	By Bill of date	2	96 40

Dr. *Francis Watkins.* *Cr.*

1883.					1883.				
Nov.	20	To Bal. from folio	2	19 50	Nov.	30	*By Bal. to New* $		34 50
"	30	" Centre Table	2	15 00					
				34 50					34 50
1883.									
Dec.	1	To Bal. from Old $		34 50					

DEDUCTIONS.

UNSETTLED BALANCES ON THE LEDGER.

DEBTS DUE THE FIRM.		DEBTS THE FIRM OWE.	
Maurice Perry	37 40	Samuel Hudson	125 26
Peter Fowler	48 25	A. E. Ford	96 40
Andrew Cummins	15		
John A. Crowe	42		
Steamboat Vint Shinkle	87		
Francis Watkins	34 50		
	264 15		221 66

The above Ledger balances, together with the auxiliary books, furnish the material for the following statement:

ASSETS AND LIABILITIES.

ASSETS.		LIABILITIES.	
Cash on hand per C.-B.	471 98	Debts the firm owe per Ledger	221 66
Debts due the firm per Ledger	264 15	Bills Payable per B.-B.	431 20
Bills Receivable per B.-B.	300		
Furniture per Invt. Book	776 75		
Materials, etc., per Invt. Book	239 79		
Tools, per Invt. Book	141 95		
Total assets	2,194 62	Total liabilities	652 86
Deduct liabilities	652 86		
Firm's net capital or present worth	1,541 76		

ASSETS, INCLUDING PARTNERS' DEBITS.		LIABILITIES, INCLUDING PARTNERS' INVESTMENTS.	
Total assets per above statement	2,191 62	Total liabilities per above statement	652 86
Cash paid Charles Evans	10	Charles Evans' investment	648 58
" Thomas Jeffers	25	Thomas Jeffers' investment	648 58
	2,229 62		1,949 02
Deduct	1,949 02		
Firm's net gains	280 60		
Each partner's ⅓ = $140.30.			

BOOK-KEEPING BY DOUBLE ENTRY.

THE distinguishing feature of Double Entry is in carrying out a mathematical principle of equilibrium, under the titles of *debtor* and *creditor*, or *debits* and *credits*. To preserve this equilibrium, every debit must have a credit or credits to balance the amount, and, vice-versa, every credit must be balanced equally by a debit or debits. In Single Entry a record is kept of *resources* and *liabilities* only; in Double Entry is added a record of *gains* and *losses*.

The DAY-BOOK is the original book of entry and should contain in a concise and unequivocal form a consecutive history of transactions, in the order and on the date of their occurrence.

The purpose of the JOURNAL is to decide upon the proper debits and credits in each transaction, preparatary to entering them in the Ledger. The process of thus classifying transactions by debits and credits is called *journalizing*. Very often the Day-Book and Journal are combined in a "Journal Day-Book," as in Set II.

The LEDGER is the final book of entry, and in it are arranged, under the proper accounts, all facts necessary for a full statement of the business. Each of these accounts exhibits one of the four following results, viz.: A resource, a liability, a loss, or a gain. The process of transferring accounts from the Journal to the Ledger is called *posting*.

To close an account in the Ledger, add the debit and credit sides separately on a slip of paper, and, if the totals thus obtained are not equal, subtract the smaller from the greater. This difference is entered in red ink to make up the deficiency of the smaller side. Then rule with red ink and enter the totals in black. The red ink entry is then transferred in black to the opposite side of the account into which it is closed. When both columns are equal the totals are simply entered in black, and this indicates that the account is cancelled. When there are more entries on one side of an account than on the other, a line is drawn, after closing the account, obliquely across the vacant space. This line commences at a double rule opposite the double rule under the totals, and extends thence in the direction of the last figure in the column.

The Key to Journalizing.

Remember that the key to all journalizing is stated in the two old lines which the student would do well to memorize:

"By Journal laws what you receive
Is Dr. made to what you give."

By referring constantly to this rule and examining each entry in the Journal or Journal Day-Book by its light, the whole mystery of Double Entry Book-keeping will become clear.

THE PRINCIPLES.

An account is a statement of facts and figures relating to some person, property or cause, so arranged as to show a specific result. As stated on a preceding page, there are two classes of accounts, *Real* and *Representative*. In other terms, accounts showing *resources* and *liabilities*, and accounts showing *losses* and *gains*. The former are closed "To Balance" or "By Balance," and the latter "To Loss and Gain" or "By Loss and Gain." Some accountants use the words "Profit and Loss," instead of "Loss and Gain."

The following rules, embodying the principles of Double Entry Book-keeping, will be found to cover in a concise form all points which generally confuse the student groping through a voluminous treatise:

The *proprietor* or the *partners* in a business should be *credited* for all investments and for the gain or share of the gain, and *debited* for liabilities assumed, for all sums withdrawn from the business and for the loss or share of the loss incurred. Where there is only one proprietor he is represented on the books by *Stock*, but in a partnership business each partner's account is kept under his own name. The *Stock* account and partners' accounts are closed "To Balance" or "By Balance."

The *Cash* account is *credited* for all disbursements and *debited* for all receipts of cash. It always closes "By Balance."

A *Bank* account shows on the *debit* side the amount deposited, and on the *credit* side the amount withdrawn, and closes "By Balance," unless the account is overdrawn.

The *Merchandise* account is *credited* with the proceeds and *debited* with the cost of merchandise on hand at commencing and purchased in the course of business. When the merchandise has all been sold, as in Set I., the difference between the sides will show a gain if the credit side is the greater, and a loss if the debit side preponderates. Real estate, personal property and speculative accounts come under this rule.

The *Bills Receivable* account is *credited* when the notes, acceptances or obligations of others are disposed of or paid, and *debited* when such obligations are acquired. This account always closes "By Balance."

The *Bills Payable* account is *credited* when notes, etc., of the firm or business are issued, and debited when they are paid or redeemed. It always closes "To Balance."

Personal accounts, including the names of persons, banks and corporations or institutions competent to sue or be sued, are *credited* when we become indebted to them or they get out of our debt, and *debited* when they become indebted to us or we get out of their debt. These accounts are closed "By Balance" or "To Balance."

The *Expense* account is *debited* for liabilities incurred and cash paid out for which no direct return is expected—such as salaries, rent, etc. This account closes "By Loss and Gain."

The *Loss and Gain* account is *debited* with losses and *credited* with gains, and closes "To Stock" or "By Stock."

Under the head of *Interest and Discount* are debited and credited all allowances for the use of money on notes, drafts, etc. *Credit* the account when it produces value; debit the account when it costs value. This account closes "To Loss and Gain" or "By Loss and Gain."

SET I.

By way of initiation into the principles and practice of Double Entry Book-keeping we present in Set I. the record of simple business transactions. It will be observed that all transactions are first entered, in the order of their occurrence, in the Day-Book, from which they are transferred to the Journal, or journalized, and thence they are posted to the Ledger. The established form of Journal entries requires the debit expression to precede the credit. Therefore, in applying the preceding principles to the first entry in the Day-Book, using the word *Stock* to denote the proprietor, we have as our first Journal entry, "Cash, Dr., to Stock, $2,000." When one person or account is indebted to another in a certain sum, the latter is the creditor of the former to the same amount. This is the foundation of Double Entry Book-keeping, the most important characteristic of which we now encounter in transferring the first transaction to the Ledger, where it will be *doubly entered*, on the Dr. side of the *Cash* account, and on the Cr. side of the *Stock* account.

The check-mark (√) in the Day-Book is to indicate that the transaction has been carried to the Journal, and the figure in the first column of the Journal shows the page of the Ledger to which the account is posted. The number in the Ledger column immediately preceding the amount refers, in turn, to the Journal page.

How to Close the Ledger.

The purpose of closing the Ledger is to show the state of each account in a single amount, to do away with the unused accounts, and to ascertain clearly the general results of the busi-

ness. In this process all the losses and gains are gathered together in the *Loss and Gain* account, and there compared, the gains being placed upon the credit, and losses on the debit side. When the credit side is the greater the account is closed "To Stock" and shows a net gain. The opposite entry, "By Loss and Gain," is made in the Stock account and increases the capital. When the debit side is the greater, the account shows a net loss and is closed "By Stock," and the opposite entry in the *Stock* account, "To Loss and Gain," indicates a decrease in capital.

The first step in closing the Ledger is to take a *Trial Balance*, that is, to make a systematic arrangement of the Ledger accounts, with their proper debit and credit totals and differences. If the Ledger is correct, the total debits will equal the total credits.

The next thing in order is to ascertain by an inventory the value of all goods and property unsold and credit the amounts in red ink to the proper accounts, "By Balance, Inventory." The opposite entry is afterwards made on the debit side of the *Balance* account in black ink. Thus, if the *Merchandise* account has in red ink the entry, "By Balance, Inventory, $1,600," the corresponding entry in black in the *Balance* account will read, "To Mdse., $1,600." In Set I. the entire stock is supposed to have been sold, and consequently no entry of this kind will be found.

Now a *Loss and Gain* account is opened, if this has not been done previously, and also a *Balance* account. In the first are to be entered in black ink all accounts closing "To Loss and Gain" or "By Loss and Gain," showing the profit and loss on each account. In the second are to be entered all accounts closing "To Balance" or "By Balance," showing the resources and liabilities.

Close first all accounts to which inventory balances have been carried. The differences between the sides of these accounts will show gain or loss, and the closing entry, in red ink, will express the difference—"By Loss and Gain" or "To Loss and Gain."

Having finished these accounts, the other accounts in the Ledger, excepting *Stock* and partners' accounts, are closed in red ink—"To" or "By Loss and Gain," or "To" or "By Balance."

The "Loss and Gain" and "Balance" red ink entries are now carried in black ink to the opposite sides of the *Loss and Gain* and *Balance* accounts.

The *Loss and Gain* account is now closed, in red ink, "To Stock" or "By Stock." In a partnership business each partner is credited or debited with his share.

The process of closing the Ledger is now completed by taking the difference between the sides of the *Stock* account and entering in red ink "To Balance" or "By Balance," which is transferred in black to the *Balance* account.

Balance Sheets.

The balance sheet given for Set II. is the most condensed form for a partnership business. The style and symmetry will commend it to all accountants, while the fulness of the illustrations must satisfy all. The form has been used for a long time, but has never been adopted to any great extent by business men, the objection being its inadequacy to contain long lists of personal accounts. This objection can be overcome by using, instead of persons' names, the general titles Accounts Receivable and Accounts Payable. In nearly all kinds of business this will reduce the number of accounts within the limits of this form.

The following rules should be used in preparing this form: First rule the parallel head-lines, leaving space for the double captions. Then ascertain the number of Ledger accounts to be represented. This will, of course, embrace all the accounts in the Trial Balance that do not cancel. If the business is that of a single proprietor, rule in pencil as many lines as will contain all the accounts, and five additional. If it be a partnership business, with two or more partners, rule three additional lines for each partner. Next lay off proper spaces for debit and credit money columns: first, for the footings of Ledger accounts; second, for Gains and Losses; third, for Stock; and fourth, for Resources and Liabilities; also, for a single money column for inventories, and for the Ledger titles and their Ledger folios. After denoting the proper space for each heading, commence to rule with red ink at the right hand and bring all the lines of the first two captions, Real accounts and Stock, or one of the partners, down to the lower pencil line. For the other partner drop two lines. For Losses and Gains drop two lines, for Stock business; and an additional line for each partner. Then rule the foot-lines as shown, and the schedule will be ready to receive the accounts.

Auxiliary Books.

All accountants, where the business is any way large, keep what are termed auxiliary books. Among these is the INVENTORY-BOOK. It is used to enumerate the different articles of unsold merchandise, at such times as may be deemed desirable. Inventories are frequently copied into Invoice-Books.

An Invoice is a statement in detail of goods sold, shipped abroad or consigned to another to be sold. The INVOICE-BOOK is used for taking copies of the invoices which accompany goods purchased or received on consignment. Some houses, instead of copying, paste their invoices in a blank Invoice-Book prepared for this purpose. This book, while showing the entire cost of merchandise, will also exhibit the separate credits producing merchandise. If a lot or package is distinguished by a peculiar mark, that mark is transferred to the invoice, thus serving an important purpose in checking the articles, adjusting disputes, etc.

Bills Receivable and Bills Payable are usually bound in opposite ends of the same book, termed a BILL-BOOK. This book should never be omitted, and especially is it important to keep a record of the amount and condition of notes payable.

The SALES-BOOK contains all the regular sales, either for cash or on time. In houses doing a mixed business the Sales-Book and Commission Sales-Book can with equal propriety be kept together or separate, as convenience may dictate.

SET I. DAY-BOOK. (1.)

St. Louis, December 1st, 1883.

1	Commenced business this day with Cash to the amount of		2,000
	"		
1	Bought of Armstrong & Co., on ⚡,		
	1,000 brls. Flour, @ $6.00,		6,000
	3		
1	Sold Jesse Jameson, for Cash,		
	300 brls. Flour, @ $6.50,		1,950
	5		
1	Sold John Williams, on ⚡,		
	250 brls. Flour, @ $7.00,		1,750
	7		
1	Sold Wm. Moore, on his Note @ 30 days,		
	150 brls. Flour, @ $7.00,		1,050
	10		
1	Bought of Joseph Wheelock, on our Note @ 60 days,		
	500 bu. Wheat, @ $1.00,		500
	12		
1	Sold Albert St. John, for Cash,		
	100 bu. Wheat, @ $1.25,	$125.00	
	100 brls. Flour, @ $6.75,	675.00	800
	14		
1	Paid Cash for Stationery and Books for use of Store,		50
	15		
1	Bought of Edwin Ellerton, for Cash,		
	300 brls. Flour, @ $5.00,		1,500
	17		
1	Sold Peter Potts, for Cash,		
	100 brls. Flour, @ $6.00,		600
	18		
1	Bought of W. L. George, on ⚡,		
	1,000 bu. Oats, @ 75¢,		750
	20		
1	Sold Sellers & Bro., on their Note @ 5 days,		
	500 bu. Oats, @ 80¢,	$400.00	
	100 bu. Wheat, @ $1.15,	115.00	515
	22		
1	Sold Bernard Blair, for Cash,		
	400 brls. Flour, @ $6.00,	$2,400.00	
	300 bu. Wheat, @ $1.10,	330.00	2,730
	26		
1	Bought of Howard Harrison, on ⚡,		
	1,500 brls. Flour, @ $5.50,		8,250
	27		
1	Sold A. A. McHatton, on ⚡,		
	1,000 brls. Flour, @ $6.00,		6,000
	28		
1	Received Cash in full for Sellers & Bro.'s Note,		515
	29		
1	Sold Patrick Connolly, for Cash,		
	500 brls. Flour, @ $5.75,	$2,875.00	
	500 bu. Oats, @ 90¢,	450.00	3,325
	31		
1	Paid Clerk Hire, in Cash,	$60.00	
	Paid Store Rent,	40.00	100
			38,385

SET I. JOURNAL. (1.)

St. Louis, December 1, 1883.

			Dr.	Cr.
1	CASH,	Dr.	2,000	
1		To STOCK,		2,000
		"		
1	MERCHANDISE,	Dr.	6,000	
1		To ARMSTRONG & CO.,		6,000
		3		
1	CASH,	Dr.	1,950	
1		To MERCHANDISE,		1,950
		5		
1	JOHN WILLIAMS,	Dr.	1,750	
1		To MERCHANDISE,		1,750
		7		
2	BILLS RECEIVABLE,	Dr.	1,050	
1		To MERCHANDISE,		1,050
		10		
1	MERCHANDISE,	Dr.	500	
1		To BILLS PAYABLE,		500
		12		
1	CASH,	Dr.	800	
1		To MERCHANDISE,		800
		14		
2	EXPENSE,	Dr.	50	
1		To CASH,		50
		15		
1	MERCHANDISE,	Dr.	1,500	
1		To CASH,		1,500
		17		
1	CASH,	Dr.	600	
1		To MERCHANDISE,		600
		18		
1	MERCHANDISE,	Dr.	750	
2		To W. L. GEORGE,		750
		20		
2	BILLS RECEIVABLE,	Dr.	515	
1		To MERCHANDISE,		515
		22		
1	CASH,	Dr.	2,730	
1		To MERCHANDISE,		2,730
		26		
1	MERCHANDISE,	Dr.	8,250	
2		To HOWARD HARRISON,		8,250
		27		
2	A. A. MCHATTON,	Dr.	6,000	
1		To MERCHANDISE,		6,000
		28		
1	CASH,	Dr.	515	
2		To BILLS RECEIVABLE,		515
		29		
1	CASH,	Dr.	3,325	
1		To MERCHANDISE,		3,325
		31		
2	EXPENSE,	Dr.	100	
1		To CASH,		100
			38,385	38,385

SET I. LEDGER. (I.)

Stock.

Dr.						Cr.					
1883. Dec.	31	To Balance,		3,570		1883. Dec.	1	By Cash,	1	2,000	
						"	31	" Loss and Gain,	L2	1,570	
				3,570						3,570	
						1884. Jan.	1	By Balance,		3,570	

Cash.

Dr.						Cr.					
1883. Dec.	1	To Stock,	1	2,000		1883. Dec.	14	By Expense,	1	50	
"	3	" Mdse.,	1	1,950		"	15	" Mdse.,	1	1,500	
"	12	" "	1	800		"	31	" Expense,	1	100	
"	17	" "	1	600		"	31	" Balance,	L2	10,270	
"	22	" "	1	2,730							
"	28	" Bills Receivable,	1	515							
"	29	" Mdse.,	1	3,325							
				11,920						11,920	
1884. Jan.	1	To Balance,		10,270							

Merchandise.

Dr.						Cr.					
1883. Dec.	1	To Armstrong & Co.,	1	6,000		1883. Dec.	3	By Cash,	1	1,950	
"	10	" Bills Payable,	1	500		"	5	" John Williams,	1	1,750	
"	15	" Cash.	1	1,500		"	7	" Bills Receivable,	1	1,050	
"	18	" W. L. George,	1	750		"	12	" Cash,	1	[illegible]	
"	26	" Howard Harrison,	1	8,250		"	17	" "	1	600	
"	31	" Loss and Gain,	L2	1,720		"	20	" Bills Receivable,	1	515	
						"	22	" Cash,	1	2,730	
						"	27	" A. A. McHatton,	1	6,000	
						"	29	" Cash,	1	3,325	
				18,720						18,720	

Armstrong & Co.

Dr.						Cr.					
1883. Dec.	31	To Balance,	L2	6,000		1883. Dec.	1	By Mdse.,	1	6,000	
						1884. Jan.	1	By Balance,		6,000	

John Williams.

Dr.						Cr.					
1883. Dec.	5	To Mdse.,	1	1,750		1883. Dec.	31	By Balance,	L2	1,750	
1884. Jan.	1	To Balance,		1,750							

SET I. LEDGER. (2.)

Dr. *Bills Receivable.* Cr.

1883.					1883.				
Dec.	7	To Mdse.,	1	1,050	Dec.	28	By Cash,	1	515
"	20	" "	1	515	"	31	" *Balance,*	L2	1,050
				1,565					1,565
1884.									
Jan.	1	To Balance,		1,050					

Dr. *Bills Payable.* Cr.

1883.					1883.				
Dec.	*31*	*To Balance,*	*L2*	*500*	Dec.	10	By Mdse.,	1	500
					1884.				
					Jan.	1	By Balance.		500

Dr. *Expense.* Cr.

1883.					1883.				
Dec.	14	To Cash,	1	50	*Dec.*	*31*	*By Loss and Gain,*	*L2*	*150*
"	31	" "	1	100					
				150					150

Dr. *W. L. George.* Cr.

1883.					1883.				
Dec.	*31*	*To Balance,*	*L2*	*750*	Dec.	18	By Mdse.,	1	750
					1884.				
					Jan.	1	By Balance,		750

Dr. *Howard Harrison.* Cr.

1883.					1883.				
Dec.	*31*	*To Balance,*	*L2*	*8,250*	Dec.	26	By Mdse.,	1	8,250
					1884.				
					Jan.	1	By Balance,		8,250

Dr. *A. A. McHatton.* Cr.

1883.					1883.				
Dec.	27	To Mdse.,	1	6,000	*Dec.*	*31*	*By Balance,*	*L2*	*6,000*
1884.									
Jan.	1	To Balance,		6,000					

Dr. *Balance.* Cr.

1883.					1883.				
Dec.	31	To Cash,	L1	10,270	Dec.	31	By Armstrong & Co.,	L1	5,000
"	31	" John Williams,	L1	1,750	"	31	" Bills Payable,	L2	500
"	31	" Bills Receivable,	L2	1,050	"	31	" W. L. George,	L2	750
"	31	" A.A. McHatton,	L2	6,000	"	31	" Howard Harrison,	L2	8,250
				19,070	"	31	" *Balance (net capital),*		4,570
									19,070

Dr. *Loss and Gain.* Cr.

1883.					1883.				
Dec.	31	To Expense,	L2	150	Dec.	31	By Mdse.,	L1	1,720
"	*31*	" *Stock (net gain),*	*L1*	*1,570*					
				1,720					1,720

SET I. TRIAL BALANCE.—FACE OF LEDGER.

Dr.		*Cr.*
	Stock	2,000
11,920	Cash	1,720
17,000	Merchandise	18,720
	Armstrong & Co.	6,000
1,750	John Williams	
1,565	Bills Receivable	515
	Bills Payable	500
150	Expense	
	W. L. George	750
	Howard Harrison	8,250
6,000	A. A. McHatton	
38,385	*Equilibrium*	38,385

TRIAL BALANCE.—DIFFERENCES.

		Dr.	*Cr.*
1	Stock,		2,000
1	Cash,	10,270	
1	Merchandise,		1,720
1	Armstrong & Co.,		6,000
1	John Williams,	1,750	
2	Bills Receivable,	1,050	
2	Bills Payable,		500
2	Expense,	150	
2	W. L. George,		750
2	Howard Harrison,		8,250
2	A. A. McHatton,	6,000	
		19,220	19,220

DOUBLE ENTRY. SET II.

DAY-BOOK AND JOURNAL COMBINED.

IN the system given in the following pages, the main feature is the combination of the Day-Book and the Journal. This form is the most practical in use for general purposes, and has been adopted by accountants in all branches of business. Its chief advantage is in dispensing with a separate Journal, and in bringing the Day-Book and Journal entries into such immediate connection as to leave no doubt of their identity. In this set by Merchandise Companies is meant the temporary copartnership existing between the consignor and the consignee, having reference to the sale of particular consignments. In Merchandise Company business, one of the partners, the consignee, is the commission merchant, and, in that capacity, receives and disposes of the property as he would of a simple consignment, the only difference being that he is interested in the losses and gains. This species of copartnership differs from that of a general partnership only in its duration and the manner of conducting its sales. In the first method, exemplified by the three Merchandise Company accounts A, B and C, in the month of April, the principle recognized is that the holder of the property is responsible for it. Thus, when we receive from James A. Wright & Co. an invoice to be sold on joint account, we debit Mdse. Co. A with the invoice and expenses, and credit the consignor with the cost of the invoice, thus making ourselves responsible for the property as if it were all our own. The consignor's entry, if recognizing the same principle, will be to debit us for the entire cost of the merchandise. In the second method, shown by the three Mdse. Co. accounts D, E and F, the principle recognized is that the owner of the property is responsible. For example, when we receive from George Allen & Co. merchandise to be sold on joint account, we debit Mdse. Co. D with our own share only, and credit the consignor. The consignor's entry in this case, if made to correspond with ours, would be to debit us for our share, and "Shipment in Co., to St. Louis," for his share. However, the final result is the same in both cases. So far as absolute right and responsibility is concerned, the second method is correct, the principle recognized being that the owner of the property is responsible. The only advantage possessed by the first method is that the Mdse. Co. account shows its entire cost.

For the month of April the Ledger is closed without the use of a balance account by bringing down the resources and liabilities under their proper accounts. This is the business method, and if each month is supposed to represent a year, this would be a good instance of the manner of closing books at the end of each year. The method of closing by Journal entries as shown in the month of May is used frequently, though requiring more labor and possessing no advantage over the other. The books used in this set are the Journal Day-Book and Ledger.

SET II. JOURNAL DAY-BOOK. (1.)

St. Louis, April 2, 1883.

	John Adams and Arthur Astor have this day entered into copartnership, under the style and firm of Adams & Astor, in the prosecution of a general Commission and Grocery business; to invest in equal amounts and participate alike in gains and losses.				
2	CASH,	Dr.		10,000	
1		To JOHN ADAMS,			10,000
		For amount of his investment.			
		"			
2	FIRST NATIONAL BANK,	Dr.		10,000	
1		To ARTHUR ASTOR,			10,000
		For amount of his investment.			
		"			
1	STORE AND FIXTURES,	Dr. To SUNDRIES,		12,500	
		Bo't of John Adams his store and fixtures.			
1	To MORTGAGE PAYABLE,	Assumed mortgage on the property,			9,000
2	" INTEREST,	Due on mortgage to date,			84
2	" CASH,	For balance,			3,416
		3			
3	MERCHANDISE,	Dr.		3,900	
4		To JOHN A. FARGO & Co.,			3,900
		Bo't on $,			
		5 casks Brandy, 300 gals. @ $2,	$ 600		
		200 brls. Mess Pork, @ $9,	1,800		
		30,000 lbs. Bacon Sides, @ 5¢,	1,500		
		"			
3	EXPENSE,	Dr.		75	
2		To CASH,			75
		Paid for set of Books.			
		"			
4	MDSE. CO. A,	Dr. To SUNDRIES,		3,900	
		Received from James A. Wright & Co., Pittsburg, to be sold on our joint $ and risk, each ½,			
		800 kegs Nails, @ $3	$2,400		
		20,000 lbs. Lead, @ 7¢,	1,400		
4	To JAMES A. WRIGHT & Co.,	Their invoice as above,			3,800
2	" CASH,	Paid freight,			100
		4			
4	MDSE. CO. B,	Dr.		4,000	
3		To BUTLER & CARLTON,			
		Received from B. & C., Sedalia, Mo., to be sold on our joint $ and risk, each ½,			
		500 brls. Flour, @ $8,			4,000
		5			
2	CASH,	Dr.		1,400	
4		To MDSE. CO. A.,			
		Sold George Cooper,			
		400 kegs Nails, @ $3.50,			1,400
		6			
4	BILLS RECEIVABLE,	Dr.		3,300	
4		To MDSE. CO. A,			
		Sold Joseph Stanton, on his note @ 30 days,			
		20,000 lbs. Lead @ 9¢	$1,800		
		400 kegs Nails @ $3.75	1,500		
		"			3,300
4	MDSE. CO. A,	Dr. To SUNDRIES,		800	
		Closed Company sales with James A. Wright & Co., and rendered them an $ of the same.			
4	To STORAGE AND ADV.,				10
5	" COMMISSION,	Our charges @ 2½ $ on $4,700,			117 50
4	" J. A. WRIGHT & Co.,	Their ½ net gain,			338 25
3	" LOSS AND GAIN,	Our " "			338 25
				49,875	49,875

SET II. JOURNAL DAY-BOOK. (2.)

Saint Louis, April 6, 1883.

	Amounts brought forward,			49,875	49,875
3	BUTLER & CARLTON,	Dr. To SUNDRIES,		2,915	
		Shipped them, to be sold on our joint ⅘, each ½,			
		20 hhds. Sugar, 24,000 lbs. @ 5¢	$1,200		
		100 bags Coffee, 14,000 lbs. @ 10¢	1,400		
		100 boxes Raisins @ $3	300		
		Bo't of J. Wills & Co., on our Note @ 90 days,			
5	To BILLS PAYABLE,	For above Note,			2,900
2	" CASH.	Paid Insurance, ½ ⅘ on $3,000,			15
		7			
5	JAMES SCOTT,	Dr.		4,500	
4		To MDSE. Co. B,			
		Sold him @ 30 days,			
		500 brls. Flour @ $9, "			4,500
				500	
4	MDSE. Co. B,	Dr. To SUNDRIES,			
		Closed sales in Company with Butler & Carlton, of Sedalia, Mo., and rendered them an ⅘ of sales.			
4	To STORAGE AND ADV.,	Our Charges,			20
5	" COMMISSION,	2½ % on $4,500,			112 50
3	" BUTLER & CARLTON,	Their ½ net gain,			183 75
3	" LOSS AND GAIN,	Our " "			183 75
		9			
3	SUNDRIES,	Dr. To MERCHANDISE,			
		Sold John Tyler,			
		30,000 lbs. Bacon @ 6¢			1,800
2	CASH,	Received,		800	
4	BILLS RECEIVABLE,	His Note @ 30 days, for balance,		1,000	
		"			
4	JAMES A. WRIGHT & Co.,	Dr.		4,136 25	
5		To BILLS PAYABLE,			4,136 25
		Accepted their draft on us @ thirty days sight, favor F. B. Morse & Co., in full of their ⅘.			
		"			
5	MDSE. Co. C,	Dr. To SUNDRIES,		8,700	
		Received per Anchor Line, from Peter Curtis, Cairo, to be sold on joint ⅘ of himself, J. G. Holland, Memphis, and ourselves, each ⅕, as per contract,			
		1,000 brls. Flour, @ $8.50	$8,500		
5	To PETER CURTIS,	For his and our ⅘ above invoice,			5,666 67
6	" J. G. HOLLAND,	" ⅖ " "			2,833 38
2	" CASH,	Paid Freight			200
		12			
6	STR. MISSOURI BELLE ST'K,	Dr. To SUNDRIES,			
		Bo't of John Dunn, ½ Steamer Missouri Belle, for		10,000	
2	To CASH,	Paid in hand			5,000
5	" BILLS PAYABLE,	Gave our note @ ninety days, for			5,000
		13			
5	SUNDRIES,	Dr. To MDSE. Co. C,			
		Sold William Cook, Sedalia,			
		1,000 brls Flour, @ $10			10,000
4	BILLS RECEIVABLE,	His note @ forty days, for		7,000	
2	CASH,	For Balance,		3,000	
		"			
5	MDSE. Co. C,	Dr. To SUNDRIES,		1,300	
		Closed sales in Company with Curtis & Holland, and rendered them each an Account of the same.			
4	To STORAGE & ADVER.,	Our charges,			30
5	" COMMISSION,	2½ % on $10,000			250
5	" PETER CURTIS,	His ½ net gain,			340
6	" J. G. HOLLAND,	" " "			340
3	" LOSS AND GAIN,	Our " "			340
				93,726 25	93,726 25

SET II. JOURNAL DAY-BOOK. (3.)

Saint Louis, April 14, 1883.

	Amounts brought forward,			93,720 25	93,720 25
2	CASH,	Dr.		900	
3		To MERCHANDISE,			900
		Sold J. Collins, East St. Louis,			
		5 casks Brandy, 300 gals., @ $3			
		16			
3	MERCHANDISE,	Dr. To SUNDRIES,			
		Bo't of J. Wills & Co.,			
		30 hhds. Sugar, 30,000 lbs., @ 6¢.		1,800	
2	To CASH,	Paid in hand,			800
6	" J. WILLS & Co.,	Balance on ⅚,			1,000
		18			
2	SUNDRIES,	Dr. To CASH,			200
3	EXPENSE,	Paid clerk hire to 15th,		50	
6	ARTHUR ASTOR, PRIV.,	Paid him on ⅚,		150	
		20			
4	SUNDRIES,	Dr. To BILLS RECEIVABLE,			1,000
		John Tyler has discounted his note in our favor, due May 12th.			
1	CASH,	Proceeds of note,		995 73	
2	INTEREST,	Discount off, 22 days,		4 27	
		"			
3	BUTLER & CARLTON,	Dr.		300	
3		To LOSS AND GAIN,			300
		Received on Account Sales of the Mdse. sent them to be sold on joint account on the 7th inst. Our ½ net gain as above.			
		23			
	SUNDRIES,	Dr. To SUNDRIES,			
		Shipped J. G. Holland, Memphis, to be sold on joint ⅚ of J. G. Holland, Peter Curtis, of Cairo, and ourselves, each ⅓,			
		33 hhds. Sugar, 30,000 lbs., @ 6½¢.	$1,950		
		Freight on same	50		
			$2,000		
6	J. G. HOLLAND,	For his and our ⅔ above invoice,		1,333 34	
5	PETER CURTIS,	" " ⅓ " "		666 66	
3	To MERCHANDISE,	As above,			1,950
2	" CASH,	Paid Freight,			50
		25			
5	JOHN ADAMS, PRIV.,	Dr.		200	
2		To FIRST NATIONAL BANK,			200
		Drew on Private ⅚.			
		"			
3	BUTLER & CARLTON,	Dr.		968 75	
2		To FIRST NATIONAL BANK,			968 75
		Paid their draft on us in favor of James Flood.			
		28			
2	CASH,	Dr.		1,500	
1		To STORE AND FIXTURES,			1,500
		Received rent for upper floors to date.			
		"			
6	STEAMER MISSOURI BELLE,	Dr.		250	
6		To STEAMER MISSOURI BELLE STOCK,			250
		For our share of earnings of last trip, as per statement rendered this day.			
		30			
3	EXPENSE,	Dr.		159	
2		To CASH,			159
		Sundry expenses to date, as per Expense-Book.			
		30			
3	LOSS AND GAIN,	Dr.		115	
6		To J. G. HOLLAND,			115
		For our ½ net loss on shipment of Sugar for joint ⅚ of Holland, Curtis and ourselves, of the 22d inst., as per Account Sales this day received.			
				103,119	103,119

SET II. JOURNAL DAY-BOOK. (4.)

St. Louis, April 30, 1883.

	Amounts brought forward.			103,119	103,119
2	CASH,	Dr.		2,688 90	
1		To JOHN ADAMS,			2,688 90
	Amount invested this day.				
				105,807 90	105,807 90

St. Louis, May 1st, 1883.

6	MDSE. Co. D,	Dr. To SUNDRIES,		1,460	
	Received from George Allen, St. Joseph, to be sold on our joint ⅚, each ½,				
	100 brls. Cider Vinegar, @ $7		$700		
	50 do. Linseed oil, @ $40		2,000		
	40 h'f kegs White Lead, @ $3		120		
			$2,820		
7	To GEORGE ALLEN,	For our ½ above invoice,			1,410
2	"FIRST NATIONAL B'K,	Paid freight per check,			50
		"			
2	FIRST NATIONAL BANK,	Dr.		8,500	
2		To CASH,			8,500
	Deposited.				
		2			
	SUNDRIES,	Dr. To SUNDRIES,			
	Shipped Watson Weed, Springfield, Ill., to be sold on joint ⅚, each ½,				
	200 brls. Mess Pork @ $9		$1,800		
	Drayage charges,		18		
			$1,818		
7	WATSON WEED,	For his ½ above invoice,		909	
7	SHIPMENT IN CO. 1.	" our ½ " "		909	
3	To MERCHANDISE,	As above,			1,800
2	" CASH,	Paid Drayage,			18
		3			
2	CASH,	Dr.		750	
6		To MDSE. Co. D,			750
	Sold to Richard Pratt,				
	100 brls. Vinegar @ $7.50				
		"			
7	INSURANCE,	Dr.		37 50	
2		To CASH,			37 50
	Effected Insurance for $5,000 on any property that may be in our Warehouse.				
		"			
7	HENRY GREEN & Co.,	Dr.		2,370	
6		To MDSE. Co. D,			
	Shipped them to Chicago, as per their order,				
	50 brls. Linseed Oil @ $45.		$2,250		
	40 h'f kegs White Lead @ $3.		120		2,370
	Payable @ Sixty Days.				
		"			
6	MDSE. Co. D,	Dr. To SUNDRIES,		1,660	
	Closed Sales in Company with George Allen, and rendered him an Account Sales.				
7	To CHARGES,	Storage, Advertising and Insurance,			50
5	" COMMISSION,	2½ % $3,120			78
7	" GEORGE ALLEN,	For his ½ invoice $1,410 and net gain $61.			1,471
3	" LOSS AND GAIN,	" Our ½ net gain,			61
				16,595 50	16,595 50

SET II. JOURNAL DAY-BOOK. (5.)

St. Louis, May 5, 1883.

	Amounts brought forward,			16,595 50	16,595 50
3	EXPENSE,	Dr.		150	
2		To FIRST NATIONAL BANK,			150
	Paid advertising bills per check.				
		7			
8	MDSE. Co. E,	DR. To SUNDRIES,		2,500	
	Received of George Emerson & Co., of Vicksburg, to be sold on joint ⅓ of themselves, M. S. Clay & Co. and ourselves, each ⅓,				
	100 hhds. Sugar @ $60.		$6,000		
8	To GEO. EMERSON & Co.,	For our ⅓ Invoice,			2,000
2	" FIRST NATIONAL BANK,	Paid freight per check,			500
		"			
8	MDSE. Co. F,	Dr. To SUNDRIES,		4,000	
	Received from Hugh Spencer, Topeka, to be sold on our joint ½, each ½,				
	500 brls. Pork, @ $9.		$4,500		
	250 do Lard, 50,000 lbs., @ 5¢.		2,500		
			$7,000		
8	To HUGH SPENCER,	Our ½ above invoice,			3,500
2	" FIRST NATIONAL BANK,	Freight per check,			500
		8			
8	SUNDRIES,	Dr. To MDSE. Co. E,			
	Sold George Jenks,				
	100 hhds. Sugar, @ $75.				7,500
4	BILLS RECEIVABLE,	Received in payment, Frank H. Wells' note, dated January 1, 1883, due one day after date,		5,000	
2	INTEREST,	Due to date on above note,		123 47	
2	CASH,	For balance,		2,376 53	
		"			
8	MDSE. Co. E,	Dr. To SUNDRIES,		5,000	
	Closed Mdse. Co. E., and rendered Account Sales of the same to George Emerson, and M. S. Clay & Co., of Vicksburg.				
7	To CHARGES,	Storage, Advertising, etc.,			50
5	" COMMISSION,	2½ % on $7,500			187 50
8	" GEO. EMERSON & Co.	Their net proceeds,			2,254 16
8	" M. S. CLAY & Co.,	Their net proceeds,			2,254 17
3	" LOSS AND GAIN,	Our ⅓ net gain,			254 17
		"			
2	CASH,	Dr.		3,300	
4		To BILLS RECEIVABLE,			3,300
	Joseph Stanton has paid his note, due this day.				
		10			
2	FIRST NATIONAL BANK,	Dr.		4,000	
2		To CASH,			4,000
	Deposited.				
		11			
2	SUNDRIES,	Dr. To FIRST NATIONAL BANK,			4,057 50
	Paid on mortgage, favor of Patrick Fields.				
1	MORTGAGE PAYABLE,	Amount applied on mortgage,		4,500	
2	INTEREST,	In full to date.		157 50	
		12			
5	BILLS PAYABLE,	Dr.		4,136 25	
2		To FIRST NATIONAL BANK,			4,136 25
	Paid our acceptance, favor James A. Wright & Co., due this day.				
		"			
4	JOHN A. FARGO & Co.,	Dr.		3,900	
5		To BILLS PAYABLE,			3,900
	Accepted their draft on us payable @ ten days sight.				
		14			
2	CASH,	Dr.		4,750	
8		To MDSE. Co. F.			
	Sold Adam Kauffman,				
	500 brls. Pork, @ $9.50				4,750
				60,480 25	60,480 25

SET II. JOURNAL DAY-BOOK. (6.)

St. Louis, May 15, 1883.

	Amounts brought forward,			60,489 25	60,489 25
7	HENRY GREEN & CO.,	Dr.		275	
3		To LOSS AND GAIN,			275
	Received advice from H. G. & Co., Chicago, of an error in an Account Sales of last year's business, in which we were credited too little by the above amount.				
	"				
7	SUNDRIES,	Dr. To HENRY GREEN & CO.,			2,645
	Sold our draft on them @ thirty days sight.				
2	CASH,	Net proceeds,		2,600 05	
2	INTEREST,	Discount and exchange off,		44 95	
	17				
2	CASH,	Dr.		2,000	
8		To MDSE. CO. F,			2,000
	Sold John W. Welsh, 250 brls. Lard, 50,000 lbs., @ 4¢.				
	"				
	SUNDRIES,	Dr. To SUNDRIES,			
	Closed "Mdse. Co. F," and rendered Hugh Spencer, Topeka, an Account Sales of the same.				
8	MDSE. CO. F.,	To close ⅀		2,750	
3	LOSS AND GAIN,	Our ½ net loss,		484 37	
7	To CHARGES,	Storage, cooperage, etc.,			50
5	" COMMISSION,	2½ % on sales,			168 75
8	" HUGH SPENCER,	His ½ invoice,	$3,500		
		Less ½ net loss,	484 38		
		Leaves net proceeds,			3,015 62
	"				
8	HUGH SPENCER,	Dr.		6,515 62	
2		To CASH,			6,515 62
	Remitted him in full of ⅀.				
	"				
2	CASH,	Dr.		7,000	
4		To BILLS RECEIVABLE,			7,000
	Received payment in full for William Cook's note of April 13th.				
	"				
	23				
2	FIRST NATIONAL BANK,	Dr.		10,000	
2		To CASH,			10,000
	Deposited.				
	25				
7	WATSON WEED,	Dr.		800	
7		To SHIPMENT IN CO. No. 1,			800
	Received an Account Sales of 200 brls. Mess Pork, shipped on the 2d inst. Our net proceeds as above.				
	26				
7	GEORGE ALLEN,	Dr.		2,881	
5		To BILLS PAYABLE,			2,881
	Accepted his draft on us @ thirty days sight, favor of W. H. Walker, for amount his due.				
	"				
5	BILLS PAYABLE,	Dr.		3,900	
2		To CASH,			3,900
	Paid our acceptance favor of John A. Fargo & Co., due this day.				
	28				
2	CASH,	Dr.		4,500	
5		To JAMES SCOTT,			4,500
	To balance ⅀.				
	30				
6	J. WILLS & CO.,	Dr.		1,000	
2		To CASH,			1,000
	To balance ⅀.				
				105,240 24	105,240 24

SET II. JOURNAL DAY-BOOK. (7.)

St. Louis, May 31, 1883.

	Amounts brought forward,		105,240 24	105,240 24
1	JOHN ADAMS, Dr.		200	
6	To JOHN ADAMS, PRIVATE,			200
	For amount charged to J. D.'s Private $, now carried to his Stock $.			
	"			
1	AUTHUR ASTOR, Dr.		150	
6	To ARTHUR ASTOR, PRIVATE,			150
	For amount charged to Private $, now carried to Stock $.			
	"			
2	INTEREST, Dr.		15 68	
1	To JOHN ADAMS,			15 68
	Allowed 7 % on his additional investment of April 30.		105,605 92	105,605 92
	CLOSING ENTRIES.			
	"			
8	BALANCE, Dr.		15,000	
1	To STORE AND FIXTURES,			15,000
	Valuation of property.			
	"			
1	STORE AND FIXTURES, Dr.		2,500	
3	To LOSS AND GAIN,			2,500
	For increase in value of property.			
	"			
1	MORTGAGE PAYABLE, Dr.		4,500	
8	To BALANCE,			4,500
	Amount due on Mortgage.			
	"			
8	BALANCE, Dr.		4,575 09	
2	To CASH,			4,575 09
	Amount on hand.			
	"			
8	BALANCE, Dr.		21,337 50	
2	To FIRST NATIONAL BANK,			21,337 50
	Balance on deposit.			
	"			
2	INTEREST, Dr.		18 37	
8	To BALANCE,			18 37
	Amount due from us to date on Mortgage.			
	"			
8	BALANCE, Dr.		146 82	
2	To INTEREST,			146 82
	Amount due us on $ F. H. Wells' note.			
	"			
3	LOSS AND GAIN, Dr.		213 15	
3	To INTEREST,			213 15
	Cost over proceeds of Interest.			
	"			
3	LOSS AND GAIN, Dr.		150	
3	To EXPENSE,			150
	Balance of Expense Account.			
	"			
8	BALANCE, Dr.		5,000	
4	To BILLS RECEIVABLE,			5,000
	Note on hand (F. H. Wells).			
	"			
5	COMMISSION, Dr.		434 25	
8	To LOSS AND GAIN,			434 25
	Gain on Commission.			
			53,875 18	53,875 18

SET II. JOURNAL DAY-BOOK. (8.)

St. Louis, May 31, 1883.

	Amounts brought forward,		53,875 18		53,875 18
5	Bills Payable,	Dr.	10,781		
8		To Balance,			10,781
	Our outstanding Notes.				
	"				
5	Peter Curtis,	Dr.	5,340 01		
8		To Balance,			5,340 01
	Amount due him.				
	"				
6	J. G. Holland,	Dr.	1,954 99		
8		To Balance,			1,954 99
	Amount due him.				
	"				
8	Balance,	Dr.	10,000		
6		To Steamer Missouri Belle Stock,			10,000
	Valuation of our interest in Steamer Missouri Belle.				
	"				
8	Balance,	Dr.	250		
6		To Steamer Missouri Belle,			250
	Amount due us.				
	"				
8	Balance,	Dr.	1,709		
7		To Watson Weed,			1,709
	Balance due us.				
	"				
3	Loss and Gain,	Dr.	109		
7		To Shipment in Co. 1,			109
	Our loss on shipment.				
	"				
4	Loss and Gain,	Dr.	37 50		
7		To Insurance,			37 50
	Cost of insurance.				
	"				
7	Charges,	Dr.	150		
3		To Loss and Gain,			150
	Gain on storage, advertising, etc.				
8	Geo. Emerson & Co.,	Dr.	4,254 16		
8		To Balance,			4,254 16
	Amount due them.				
	"				
8	M. S. Clay & Co.,	Dr.	2,254 17		
8		To Balance,			2,254 17
	Amount due them.				
	"				
3	Loss and Gain,	Dr. To Sundries,	2,680 40		
	Net gain carried to Partners' ⅘.				
1	To John Adams,	His ½ net gain,			1,340 20
1	" Arthur Astor,	" " " "			1,340 20
	"				
1	John Adams,	Dr.	15,785 14		
8		To Balance,			15,785 14
	For amount his net capital.				
	"				
1	Arthur Astor,	Dr.	13,130 57		
8		To Balance,			13,130 57
	For amount his net capital.				
			122,311 12		122,311 12

SET II. LEDGER. (1.)

Dr. *John Adams.* *Cr.*

1883. Apr.	31	To Balance,	L1	[illegible]	1883. Apr.	2	By Cash,	1	[illegible]	
					"	30	" "	4	2,688	90
					"	30	" Loss and Gain,	L3	1,940	36
				14,629 26					14,629	26
May	31	To J. A., Private,	7	200	May	1	By Balance,	L1	14,629	26
"	31	" Balance,	8	15,785 14	"	31	" Interest,	7	15	68
					"	31	" Loss and Gain,	8	1,340	20
				15,985 14					15,985	14

Dr. *Arthur Astor.* *Cr.*

1883. Apr.	30	To Balance,	L1	[illegible]	1883. Apr.	2	By First National Bank,	1	10,000	
					"	30	" Loss and Gain,	L3	1,940	37
				11,940 37					11,940	37
May	31	To A. A., Private,	7	150	May	1	By Balance,	L1	11,940	37
"	31	" Balance,	8	13,130 57	"	31	" Loss and Gain,	8	1,340	20
				13,280 57					13,280	57

Dr. *Store and Fixtures.* *Cr.*

1883. Apr.	2	To Sundries,	L1	12,500	1883. Apr.	28	By Cash,	3	1,500	
	30	" Loss and Gain,								
				14,000					14,000	
May	1	To Balance,	L1	12,500	May	31	By Balance,	7	15,000	
"	31	" Loss and Gain,	7	2,500						
				15,000					15,000	

Dr. *Mortgage Payable* *Cr.*

1883. May	11	To First National Bank,	5	4,500	1883. Apr.	2	By Store and Fixtures,	1	9,000	
"	31	" Balance,	7	4,500						
				9,000					9,000	

SET II. LEDGER. (2.)

Cash.

Dr.						Cr.				
1883.					1883.					
Apr.	1	To John Adams,	1	10,000	Apr.	2	By Store and Fixtures,	1	3,416	
"	5	" Mdse. Co. A,	1	1,400	"	3	" Expense,	1	75	
"	9	" Mdse.,	1	800	"	3	" Mdse. Co. A,	1	100	
"	13	" Mdse. Co. C,	2	3,000	"	6	" Butler & Carlton,	2	15	
"	14	" Mdse.,	3	900	"	9	" Mdse. Co. C,	2	200	
"	20	" Bills Receivable,	3	995 73	"	12	" Str. Missouri Belle Stock,	2	5,000	
"	28	" Store and Fixtures,	3	1,500	"	16	" Mdse.,	3	800	
"	30	" John Adams,	4	2,688 90	"	18	" Sundries,	3	200	
					"	23	" "	3	50	
					"	30	" Expense,	3	159	
					"	30	" *Balance,*	L2	11,269 63	
				21,284 63					21,284 63	
May	1	To Balance,	L2	11,269 63	May	1	By First National Bank,	4	8,500	
"	3	" Mdse. Co. D,	4	750	"	2	" Sundries,	4	18	
"	8	" Mdse. Co. E,	5	2,376 53	"	3	" Insurance,	4	37 50	
"	8	" Bills Receivable,	5	3,300	"	10	" First National Bank,	5	4,000	
"	14	" Mdse. Co. F,	5	4,750	"	17	" Hugh Spencer,	6	6,515 62	
"	15	" Henry Green & Co.,	6	2,600 05	"	23	" First National Bank,	6	10,000	
"	17	" Mdse. Co. F,	6	2,000	"	26	" Bills Payable,	6	3,000	
"	17	" Bills Receivable,	6	7,000	"	30	" J. Wills & Co.,	6	1,000	
"	28	" James Scott,	6	4,500	"	31	" Balance,	7	4,575 09	
				38,546 21					38,546 21	

First National Bank.

Dr.						Cr.				
1883.					1883.					
Apr.	2	To A. Astor,	1	10,000	Apr.	25	By John Adams,	3	200	
					"	25	" Butler & Carlton,	3	968 75	
					"	30	" *Balance,*	L2	8,831 25	
				10,000					10,000	
May	1	To Balance,	L2	8,831 25	May	1	By Mdse. Co. D,	4	50	
"	1	" Cash,	4	8,500	"	5	" Expense,	5	150	
"	10	" "	5	4,000	"	7	" Mdse. Co. E,	5	500	
"	23	" "	6	10,000	"	7	" Mdse. Co. F,	5	500	
					"	11	" Sundries,	5	4,657 50	
					"	12	" Bills Payable,	5	4,136 25	
					"	31	" Balance,	7	21,337 50	
				31,331 25					31,331 25	

Interest.

Dr.						Cr.				
1883.					1883.					
Apr.	20	To Bills Receivable,	3	4 27	Apr.	1	By Store and Fixtures,	1	84	
"	30	" *Loss and Gain,*	L3	79 73						
				84					84	
May	8	To Mdse. Co. E,	5	123 47	May	31	By Balance,	7	146 82	
"	11	" First National Bank,	5	157 50	"	31	" Loss and Gain,	7	213 15	
"	15	" Henry Green & Co.,	6	44 95						
"	31	" John Adams,	7	15 68						
"	31	" Balance,	7	18 37						
				359 97					359 97	

SET II. LEDGER. (3.)

Expense.

Dr.									*Cr.*			
1883.						1883.						
Apr.	3	To Cash,	1	75		Apr.	30	By Loss and Gain,				
"	18	" "	3	50								
"	30	" "	3	159								
				284							284	
May	5	To First National Bank,	5	150		May	31	By Loss and Gain,			150	

Butler & Carlton.

Dr.									*Cr.*			
1883.						1883.						
Apr.	6	To Sundries,	2	2,915		Apr.	4	By Mdse. Co. B,	1		4,000	
"	20	" Loss and Gain,	3	300		"	7	" " "	2		183	75
"	25	" First National Bank,	3	968	75							
				4,183	75						4,183	75

Merchandise.

Dr.									*Cr.*			
1883.						1883.						
Apr.	3	To John A. Fargo & Co.,	1	4,000		Apr.	9	By Sundries,	2		1,800	
"	16	" Sundries,	3	1,800		"	14	" Cash,	3		900	
"	30	" Loss and Gain,	L3	650		"	23	" Sundries	3		1,950	
				6,450							6,450	
May	1	To Balance,	L3	1,800		May	2	By Sundries,	4		1,800	

Loss and Gain.

Dr.									*Cr.*			
1883.						1883.						
Apr.	30	To J. G. Holland,	3	115		Apr.	6	By Mdse. Co. A,	1		336	25
"	30	" Expense,	L3	284		"	7	" Mdse. Co. B,	2		183	75
"	30	" John Adams (net gain),	L1	1,000		"	13	" Mdse. Co. C,	2		340	
"	30	" Arthur Astor (net gain),	L1	1,000		"	20	" Butler & Carlton,	3		300	
						"	30	" Store and Fixtures,	L1		1,500	
						"	30	" Interest,	L2		79	73
						"	30	" Mdse.,	L3		750	
						"	30	" Storage and Adver.,	L4		60	
						"	30	" Commission,	L5		480	
						"	30	" Str. Missouri Belle Stock,	L6		250	
				4,279	73						4,279	73
May	17	To Mdse. Co. F,	6	484	37	May	3	By Mdse. Co. D,	4		61	
"	31	" Interest,	7	213	15	"	8	" Mdse. Co. E,	5		254	17
"	31	" Expense,	7	150		"	15	" Henry Green & Co.,	6		275	
"	31	" Shipment in Co. 1,	8	109		"	31	" Store and Fixtures,	7		2,500	
"	31	" Insurance,	8	37	50	"	31	" Commission,	7		434	45
"	31	" Sundries,	8	2,680	40	"	31	" Charges,	8		150	
				3,674	42						3,674	42

SET II. LEDGER. (4.)

Dr. *John A. Fargo & Co.* *Cr.*

1883.					1883.				
May	12	To Bills Payable,	5	3,900	Apr.	3	By Mdse.,	1	3,900

Dr. *Mdse. Co. A.* *Cr.*

1883.					1883.				
Apr.	3	To Sundries,	1	3,900	Apr.	5	By Cash,	1	1,400
"	6	" "	1	800	"	6	" Bills Receivable,	1	3,300
				4,700					4,700

Dr. *James A. Wright & Co.* *Cr.*

1883.					1883.				
Apr.	9	To Bills Payable,	2	4,136 25	Apr.	3	By Mdse. Co. A,	1	3,800
					"	6	" " " "	1	336 25
				4,136 25					4,136 25

Dr. *Mdse. Co. B.* *Cr.*

1883.					1883.				
Apr.	4	To Butler & Carlton,	1	4,000	Apr.	7	By James Scott,	2	4,500
"	7	" Sundries,	2	500					
				4,500					4,500

Dr. *Bills Receivable.* *Cr.*

1883.					1883.				
Apr.	6	To Mdse. Co. A,	1	3,300	Apr.	20	By Sundries,	3	1,000
"	9	" Mdse.,	2	1,000	"	30	" Balance,	L4	10,300
"	13	" Mdse. Co. C,	2	7,000					11,300
				11,300					
May	1	To Balance,	L4	10,300	May	8	By Cash,	5	3,300
"	8	" Mdse. Co. E,	5	5,000	"	17	" "	6	7,000
					"	31	" Balance,	7	5,000
				15,300					15,300

Dr. *Storage and Advertising.* *Cr.*

1883.					1883.				
Apr.	30	To Loss and Gain,	L2	60	Apr.	6	By Mdse. Co. A,	1	10
					"	7	" " " B,	2	20
					"	13	" " " C,	2	30
				60					60

SET II. LEDGER. (5.)

Dr. Commission. Cr.

1883.					1883.				
Apr.	30	To Loss and Gain,	L 3	480	Apr.	6	By Mdse. Co. A,	1	117 50
					"	7	" " " B,	2	112 50
					"	13	" " " C,	2	250
				480					480
May	31	To Loss and Gain,	7	434 25	May	3	By Mdse. Co. D,	4	78
					"	8	" " " E,	4	187 50
					"	17	" " " F,	4	168 75
				434 25					434 25

Dr. Bills Payable. Cr.

1883.					1883.				
Apr.	30	To Balance,	L 5	12,036 25	Apr.	6	By Butler & Carlton,	2	2,900
					"	9	" Jas. A. Wright & Co.,	2	4,136 25
					"	12	" Str. Missouri Belle Stock,	2	5,000
				12,036 25					12,036 25
May	12	To First National Bank,	5	4,136 25	May	1	By Balance,	L 5	12,036 25
"	26	" Cash,	5	3,900	"	11	" John A. Fargo & Co.,	5	3,900
"	31	" Balance,	8	10,781	"	26	" Geo. Allen,	6	2,881
				18,817 25					18,817 25

Dr. James Scott. Cr.

1883.					1883.				
Apr.	7	To Mdse. Co. B,	2	4,500	May	28	By Cash,	5	4,500

Dr. Mdse. Co. C. Cr.

1883.					1883.				
Apr.	9	To Sundries,	2	8,700	Apr.	13	By Sundries,	2	10,000
"	13	" "	2	1,300					
				10,000					10,000

Dr. Peter Curtis. Cr.

1883.					1883.				
Apr.	23	To Sundries,	3	666 66	Apr.	9	By Mdse. Co. C,	2	5,666 67
	30	" Balance,	L 5	5,340 01	"	13	" " " "	2	340
				6,006 67					6,006 67
May	31	To Balance,	8	5,340 01	May	1	By Balance,	L 5	5,340 01

SET II. LEDGER. (6.)

Dr. **J. G. Holland.** *Cr.*

1883.						1883.					
Apr.	23	To Sundries,	3	1,333 34		Apr.	9	By Mdse. Co. C,	2	2,833 33	
"	30	" Balance,	L6	1,954 99		"	13	" " " "	2	340	
				3,288 33		"	30	" Loss and Gain,	3	115	
										3,288 33	
May	31	To Balance,	8	1,954 99		May	1	By Balance,	L6	1,954 99	

Dr. **Steamer Missouri Belle Stock.** *Cr.*

1883.						1883.					
Apr.	12	To Sundries,	2	10,000		Apr.	28	By Steamer Missouri Belle,	3	250	
"	30	" Loss and Gain	L3	250		"	30	" Balance, Inventory,	L6	10,000	
				10,250						10,250	
May	1	To Balance,	L6	10,000		May	31	By Balance,	8	10,000	

Dr. **J. Wills & Co.** *Cr.*

1883.						1883.					
May	30	To Cash,	6	1,000		Apr.	16	By Mdse.	3	1,000	

Dr. **Arthur Astor, Private.** *Cr.*

1883.						1883.					
Apr.	18	To Cash,	3	150		May	31	By A. A., Stock,	7	150	

Dr. **John Adams, Private.** *Cr.*

1883.						1883.					
Apr.	25	To First National Bank,	3	200		May	31	By J. A., Stock,	7	200	

Dr. **Steamer Missouri Belle.** *Cr.*

1883.						1883.					
Apr.	28	To Str. Missouri Belle Stock,	3	250		May	31	By Balance,	8	250	

Dr. **Mdse. Co. D.** *Cr.*

1883.						1883.					
May	1	To Sundries,	4	1,460		May	1	By Cash,	4	750	
"	3	" "	4	1,660		"	3	" Henry Green & Co.,	4	2,370	
				3,120						3,120	

SET II. LEDGER. (7.)

Dr. **George Allen.** *Cr.*

1883.					1883.				
May	26	To Bills Payable,	6	2,881	May	1	By Mdse. Co. D,	4	1,410
					"	3	" " " "	4	1,471
				2,881					2,881

Dr. **Watson Weed.** *Cr.*

1883.					1883.				
May	2	To Sundries,	4	909	May	31	By Balance,	8	1,709
"	25	" Shipment in Co. No. 1,	6	800					
				1,709					1,709

Dr. **Shipment in Co. No. 1.** *Cr.*

1883.					1883.				
May	2	To Sundries,	4	909	May	25	By Watson Weed,	6	800
					"	31	" Loss and Gain,	8	109
				909					909

Dr. **Insurance.** *Cr.*

1883.					1883.				
May	3	To Cash,	4	37 50	May	31	By Loss and Gain,	8	37 50

Dr. **Henry Green & Co.** *Cr.*

1883.					1883.				
May	3	To Mdse. Co. D,	4	2,370	May	15	By Sundries,	6	2,645
"	15	" Loss and Gain,	6	275					
				2,645					2,645

Dr. **Charges.** *Cr.*

1883.					1883.				
May	31	To Loss and Gain,	8	150	May	3	By Mdse. Co. D,	4	50
					"	8	" " " E,	5	50
					"	17	" " " F,	6	50
				150					150

SET II. LEDGER. (8.)

Mdse. Co. E.

Dr.						*Cr.*				
1883.					1883.					
May	7	To Sundries,	5	2,500	May	8	By Sundries,	5	7,500	
"	8	" "	5	5,000						
				7,500					7,500	

Geo. Emerson & Co.

Dr.						*Cr.*				
1883.					1883.					
May	31	To Balance,	8	4,254 16	May	7	By Mdse. Co. E,	5	2,000	
					"	8	" " " "	5	2,254	16
				4,254 16					4,254	16

Mdse. Co. F.

Dr.						*Cr.*				
1883.					1883.					
May	7	To Sundries,	5	4,000	May	14	By Cash,	5	4,750	
"	17	" "	6	2,750	"	17	" "	6	2,000	
				6,750					6,750	

Hugh Spencer.

Dr.						*Cr.*				
1883.					1883.					
May	17	To Cash,	6	6,515 62	May	7	By Mdse. Co. F,	5	3,500	
					"	17	" " " "	6	3,015	62
				6,515 62					6,515	62

M. S. Clay & Co.

Dr.						*Cr.*				
1883.					1883.					
May	31	To Balance,	8	2,254 17	May	8	By Mdse. Co. E,	5	2,254	17

Balance.

Dr.						*Cr.*				
1883.					1883.					
May	31	To Store and Fixtures,	7	15,000	May	31	By Mortgage Payable,	7	4,500	
"	31	" Cash,	7	4,575 09	"	31	" Interest Payable,	7	18	37
"	31	" First National Bank,	7	21,337 50	"	31	" Bills Payable,	8	10,781	
"	31	" Interest Receivable,	7	146 82	"	31	" Peter Curtis,	8	5,340	01
"	31	" Bills Receivable,	7	5,000	"	31	" J. G. Holland,	8	1,954	99
"	31	" Str. Missouri Belle Stock.	8	10,000	"	31	" Geo. Emerson & Co.,	8	4,254	16
"	31	" Str. Missouri Belle,	8	250	"	31	" M. S. Clay & Co.,	8	2,254	17
"	31	" Watson Weed,	8	1,709	"	31	" John Adams,	8	15,785	14
					"	31	" Arthur Astor,	8	13,130	57
				58,018 41					58,018	41

SET II. TRIAL BALANCE, APRIL.

BALANCES.	TOTAL FOOTINGS.		TOTAL FOOTINGS.	BALANCES.
		John Adams (Stock)	12,688 90	12,688 90
		Arthur Astor (Stock)	10,000	10,000
11,000	12,500	Store and Fixtures	1,500	
		Mortgage Payable	9,000	9,000
11,269 63	21,284 63	Cash	10,015	
8,831 25	10,000	First National Bank	1,168 75	
	4 27	Interest	84	79 73
284	284	Expense		
	4,183 75	Butler & Carlton	4,183 75	
1,050	5,700	Merchandise	4 650	
	115	Loss and Gain	1,160	1 045
		John A. Fargo & Co.	3,600	3,600
	4,700	Mdse. Co. A.	4,700	
	4,136 25	Jas. A. Wright & Co.	4,136 25	
	4,500	Mdse. Co. B.	4,500	
10,300	11,300	Bills Receivable	1,000	
		Storage and Advertising	60	60
		Commission	480	480
		Bills Payable	12,036 25	12,036 25
4,500	4,500	James Scott		
	10,000	Mdse. Co. C.	10,000	
	666 66	Peter Curtis	6,006 67	5,340 01
	1,333 34	J. G. Holland	3,288 33	1,954 99
9,750	10,000	Steamer Missouri Belle Stock	250	
		J. Wills & Co.	1,000	1,000
200	200	John Adams (Private)		
150	150	Arthur Astor (Private)		
250	250	Steamer Missouri Belle		
57,584 88	105,807 90		105,807 90	57,584 88

Inventory.—Property Unsold, April 30.

Store and Fixtures, valued at cost	12,500
Mdse. on hand	1,800
Steamer Missouri Belle, at cost	10,000

SET II. TRIAL BALANCE, MAY.

BALANCES.	FOOTINGS.*		FOOTINGS.	BALANCES.
	200	John Adams	14,644 04	14,444 04
	150	Arthur Astor	11,940 37	11,790 37
12,500	12,500	Store and Fixtures		
	4,500	Mortgage Payable	9,000	4,500
4,575 09	38,546 21	Cash	33,971 12	
21,337 50	31,331 25	First National Bank	9,993 75	
341 60	341 60	Interest		
150	150	Expense		
	484 37	Loss and Gain	500 17	105 80
5,000	15,300	Bills Receivable	10,300	
		Commission	434 25	434 25
	8,036 25	Bills Payable	18,817 25	10,781
		Peter Curtis	5,340 01	5,340 01
250	250	Steamer Missouri Belle		
1,700	1,700	Watson Weed		
100	900	Shipment in Co. V	800	
37 50	37 50	Insurance		
		Charges	150	150
		Geo. Emerson & Co.	4,254 16	4,254 16
		M. S. Clay & Co.	2,254 17	2,254 17
		J. G. Holland	1,954 99	1,954 99
10,000	10,000	Steamer Missouri Belle Stock		
56,009 69	124,445 18		124,445 18	56,009 69

* The amounts in this column do not comprise, like those in the preceding balances, the footings of *all* the Ledger accounts, but such only as do not balance or cancel. The footings of this column and its opposite will not, therefore, tally with the footings of the Journal. The method here adopted is the one most in use with accountants, but does not afford so sure a test of the correctness of the Ledger.

Inventory.—Resources and Liabilities not shown in Ledger Accounts.

Store and Fixtures, valued at		15,000
Steamer Missouri Belle Stock		10,000
Interest due us on Notes	$146.82	
Less, Interest due from us	18.37	128 45

ADAMS & ASTOR'S BALANCE SHEET.

Taken St. Louis, May 31, 1883.

	L. Folio.	Trial Balance. Dr.	Trial Balance. Cr.	Inventory.	Representative. Losses.	Representative. Gains.	John Adams. Dr.	John Adams. Cr.	Arthur Astor. Dr.	Arthur Astor. Cr.	Real. Resources	Real. Liabilities
John Adams	1	200 ..	14,644 94					14,444 94				
Arthur Astor	1	150 ..	11,940 37							11,790 37		
Store and Fixtures	1	12,500 ..		15,000 ..		2,500 ..					15,000	
Mortgage Payable	1	4,500 ..	9,000 ..									4,500
Cash	2	38,546 21	33,971 12								4,575 09	
First National Bank	2	31,331 25	9,993 75								21,337 50	
Interest	2	34. 60		128 45	213 15						128 45	
Expense	3	150 ..			150							
Loss and Gain	3	484 37	590 17			105 80						
Bills Receivable	4	15,300 ..	10,300 ..								5,000	
Commission	5		434 25			434 25						
Bills Payable	5	8,036 25	18,817 25									10,781
Peter Curtis	5		5,340 01									5,340 01
Steamer Missouri Belle	6	250 ..									250	
Watson Weed	7	1,709 ..									1,709	
Shipt. in Co. 1	7	909 ..	800 ..		109							
Insurance	7	37 50			37 50							
Charges	7		150			150						
Geo. Emerson & Co	8		4,254 16									4,254 16
M. S. Clay & Co.	8		2,254 17									2,254 17
J. G. Holland	6		1,954 99									1,954 99
Steamer Missouri Belle Stock	6	10,000 ..		10,000 ..							10,000	
		124,445 18	124,445 18									
John Adams' net gain					Loss			1,340 20				
Arthur Astor's net gain					Loss					1,340 20		
					3,190 05	3,190 05						
John Adams' present Interest							15,785 14					15,785 14
							15,785 14	15,785 14				
Arthur Astor's present Interest												13,130 57
									13,130 57	13,130 57	58,000 04	58,000 04

The Columnar Journal.

Combining in one book the Day-Book, Journal, Cash-Book and Sales-Book,

AND INTRODUCING THE

COMBINED STATEMENT,

SHOWING, ON ONE SHEET, TRIAL BALANCE, LOSSES AND GAINS, ASSETS AND LIABILITIES.

A GREAT saving of space and time is effected by the use of the Columnar Journal. This plan essentially combines four books in one: Day-Book, Journal, Cash-Book and Sales-Book, and the classification of the entries obviates the necessity of carrying a multiplicity of items to the Ledger. In the pages immediately following, the transactions of Set I. are presented in the shape of a Six-column Journal — so called because it has six columns for figures — three debit and three credit columns. Merchandise and Cash, being the principal items in this set, are given special columns, and are posted to the Ledger in totals at the end of the month, or as often as the Journal is to be posted. All the amounts that pass immediately to the Ledger are placed in the General column, and to this column must be added the footings of the special columns whenever the Journal is to be fully posted. This plan may be extended to suit the requirements of any business, and instead of six columns, eight, ten, or even twenty, may be employed, the most frequently occurring items being given special columns. Besides the advantages mentioned above, the Columnar Journal presents a monthly summary, by which the business of a month or quarter may be compared with that of others, and the increase or decrease in trade may thus be more easily and definitely calculated.

By way of practice, the student of the science of accounts will do well to write up a Ledger conforming to the Six-column Journal here presented. The results will be identical with the Ledger of Set I., except that the Cash and Merchandise entries will be posted in totals at the end of the month, "By Sundries" and "To Sundries," when the footings of the special columns have been added to the General column. When this set is completed Set II. will furnish material for further study and practice.

How to Change Single Entry Books into Double Entry.

THE difference in the two systems, it should be remembered, is that in Double Entry you introduce Representative Accounts, representing the firm or business in every transaction under some one or other of the subdivisions adopted, as Stock, Cash, Merchandise, Expense, Bills Payable, Bills Receivable, Interest, Profit and Loss, etc. In changing single entry books into double entry the first step should be to make an inventory of stock, etc., and a statement of all accounts due to or by you, on separate sheets of paper. When this is done proceed to make the following entries in your Journal, entering, of course, the proper amounts in the debit and credit columns:

STOCK, DR. TO SUNDRIES.

BILLS PAYABLE, For my Notes due as per schedule hereto.

JOHN JONES, For amount due him as per schedule hereto.

PETER SMITH, For amount due him as per schedule hereto.

(*And so continue the list of parties you owe anything to.*)

SUNDRIES, DR. TO STOCK.

MERCHANDISE, For amount of stock on hand as per Inventory.

BILLS RECEIVABLE, For notes due me as per schedule hereto.

CHARLES GREY, For amount due me as per schedule hereto.

ROBERT BROWN, For amount due me as per schedule hereto.

(*And so continue the whole list.*)

Property account in the same way, if you have any; also Mortgages and Stocks.

When this has been accurately done and the amounts posted to the Ledger, the accounts will produce a positive balance-sheet—that is, the total credits will be equal to the total debits, for the following reasons:

1. Sundries is no actual account, but is used of necessity, meaning that a plurality is intended.

2. Stock Dr. to Sundries means that it is Dr. to all the accounts named, which are respectively Cr.'s, and therefore must be equal.

3. Sundries Dr. to Stock means that all the names and accounts stated are Dr., and Stock is Cr. for the aggregate of the several Debtors, and therefore must be equal.

NOTE.—The balance of Stock account will show what you are worth, or have in your business.

A SIX-COLUMN JOURNAL. (I.)

(The transactions of Set I. Written up in the form of a Columnar Journal.)

MDSE.	CASH.	GENERAL.	L.F.	*St. Louis, December 1, 1883.*	L.F.	GENERAL.	CASH.	MDSE.
	2,000 00			CASH, To STOCK, ...		2,000 00		
				Commenced business this day with $2,000 cash on hand.				
				"				
6,000 00				MERCHANDISE, To ARMSTRONG & Co., . . .		6,000 00		
				Bought, on acc't, 1,000 brls. Flour, @ $6.00.				
				3				
	1,950 00			CASH, To MERCHANDISE, ...				1,950 00
				Sold to Jesse Jameson, 300 brls. Flour, @ $6.50.				
				5				
		1,750 00		JOHN WILLIAMS, To MERCHANDISE, ...				1,750 00
				250 brls. Flour, @ $7.00.				
				7				
		1,050 00		BILLS RECEIVABLE, To MERCHANDISE, ...				1,050 00
				Sold Wm. Moore, on his Note @ 30 days,				
				150 brls. Flour, @ $7.00.				
				10				
500 00				MERCHANDISE, To BILLS PAYABLE, ...		500 00		
				Bought of Joseph Wheelock, on our Note @ 60 days,				
				500 bu. Wheat, @ $1.00.				
				12				
	800 00			CASH, To MERCHANDISE, ...				800 00
				Sold Albert St. John,				
				100 bu. Wheat, @ $1.25, . . $125.00				
				100 brls. Flour, " 6.75, . . 675.00				
				14				
		50 00		EXPENSE, To CASH, ...			50 00	
				Stationery and Books for use of Store.				
				15				
1,500 00				MERCHANDISE, To CASH, ...			1,500 00	
				Bought of Edwin Ellerton, 300 brls. Flour, @ $5.00.				
				17				
	600 00			CASH, To MERCHANDISE, ...				600 00
				Sold Peter Potts, 100 brls. Flour, @ $6.00.				
				18				
750 00				MERCHANDISE, To W. L. GEORGE, . . .		750 00		
				1,000 bu. Oats, @ 75c.				
				20				
		515 00		BILLS RECEIVABLE, To MERCHANDISE, ...				515 00
				Sold Sellers & Bro., on their Note @ 5 days,				
				500 bu. Oats, @ 80c., . . $400.00				
				100 bu. Wheat, @ $1.15, . 115.00				
8,750 00	5,350 00	3,365 00				9,250 00	1,550 00	6,665 00

A SIX-COLUMN JOURNAL. (2.)

Mdse.	Cash.	General.	L.F.	*St. Louis, December 22, 1883.*	L.F.	General.	Cash.	Mdse.
8,750 00	5,350 00	3,365 00		. . . . Amounts brought forward, ...		9,250 00	1,550 00	6,665 00
	2,730 00			Cash, To Merchandise, ...				2,730 00
				Sold Bernard Blair,				
				400 brls. Flour, @ $6.00, . $2,400.00				
				300 bu. Wheat, " 1.10, . 330.00				
				26				
8,250 00				Merchandise, To Howard Harrison, . .		8,250 00		
				Bought, on acc't, 1,500 brls. Flour, @ $5.50.				
				27				
		6,000 00		A. A. McHatton, To Merchandise, ...				6,000 00
				1 000 brls. Flour, @ $6.00.				
				28				
	515 00			Cash, To Bills Receivable, . . .		515 00		
				Sellers & Bro.'s Note paid in full this day.				
				29				
	3,325 00			Cash, To Merchandise, ...				3,325 00
				Sold Patrick Connolly,				
				500 brls. Flour, @ $5.75, . $2,875.00				
				500 bu. Oats, " .90, . 450.00				
				31				
		100 00		Expense, To Cash, ...			100 00	
				Paid Clerk Hire, ... $60.00				
				" Store Rent, ... 40.00				
17,000 00	11,920 00	9,465 00				18,015 00	1,650 00	18,720 00
		11,920 00		. . . . Dr. Cash, Cr.		1,650 00		
		17,000 00		. . . . Dr. Merchandise, Cr.		18,720 00		
		38,385 00				38,385 00		

COMBINED STATEMENT.—Trial Balance, Assets and Liabilities, Gains and Losses, all in one.

Losses.	Gains.	Debit Face of Ledger.	L.F.		Credit. Face of Ledger.	Assets.	Liabilities.
				. . . . . Stock, ...	2,000 00		
		11,920 00		. . . . . Cash, ...	1,650 00	10,270 00	
	3,220 00	17,000 00		. . . . . Merchandise, ...	18,720 00	1,500 00	
		1,565 00		. . . . . Bills Receivable, ...	515 00	1,050 00	
				. . . . . Bills Payable, ...	500 00		500 00
150 00		150 00		. . . . . Expense, ...			
				. . . . . Armstrong & Co., ...	6,000 00		6,000 00
		1,750 00		. . . . . John Williams, ...		1,750 00	
				. . . . . W. L. George, ...	750 00		750 00
				. . . . . Howard Harrison, ...	8,250 00		8,250 00
		6,000 00		. . . . . A. A. McHatton, ...		6,000 00	
3,070 00				*Stock Investment,* $2,0			
				" *Gain,* 3,07			
				" *Worth*			
3,220 00	3,220 00	38,385 00			38,385 00	20,570 00	20,570 00

A COMPENDIUM OF BIOGRAPHY

"Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time."

—*Longfellow's Psalm of Life.*

THE EMINENT HISTORICAL PERSONAGES OF ALL AGES.

IN the following Biographical Dictionary the most salient points in each career have been touched, and particular attention has furthermore been paid to adapting it to the wants of American readers and of the present time. It will be found that many names are included of persons recently brought into prominence, which are the subject of daily enquiry in this country, but of which no mention can be found in the more pretentious and bulky volumes devoted exclusively to biography. The great extent of the work has made it impossible within the pages allotted to this department to do more, in the majority of cases, than answer about each individual named the following questions: "Who was he?" "What was he?" "Where did he live?" "What did he do?" "When was he born?" "When did he die?" These queries have been replied to in the shortest possible manner. It has been the endeavor of the editor to make the collection so complete that this biographical information will answer every demand made upon it by the reader. It is confidently believed that no name at all apt to be met with in an ordinary course of English reading has been omitted.

EXPLANATION:

The figures following the name indicate the years of birth and death.
After the names of some of the Popes, where the date of birth is unknown, the first figure shows the year of accession to the pontificate.
An interrogation mark indicates that the date is doubtful or approximate.
Assumed names or sobriquets are printed in italics immediately following the name.
Fl.—Flourished or lived.
B.C.—Before the Christian era.

Am.—American.	*It.—Italian.*
Dan.—Danish.	*Nor.—Norwegian.*
Eng.—English.	*Port.—Portuguese.*
Fr.—French.	*Prus.—Prussian.*
Ger.—German.	*Scot.—Scottish.*
Gr.—Greek.	*Sw.—Swedish.*

AACHEN, Johann van. 1552–1620 German painter.

Aaron. 1574–1451 B.C. First high priest of the Israelites. Brother of Moses.

Aarschot, Philippe de Croi, Duke of. ....–1595. Flemish general and statesman.

Aarssens, Franz Van. 1572–1641. Dutch diplomatist.

Abati, Bocco degli. Florentine traitor mentioned in Dante's Inferno.

Abbas Pasha. 1874–.... Khedive of Egypt. Succeeded his father, Mohammed Tewfik Pasha, in 1892.

Abbas I. *The Great.* 1557–1628. Shah of Persia.

Abbassides. Fl. 749–1258. The most famous dynasty of Caliphs at Bagdad and Damascus.

Abbot, George. 1562–1633. English prelate.

Abbot, Rev. Jacob. 1803–1879. Am. author. *Rollo Books.*

Abbott, John Stevens Cabot. 1805–1877. American historian.

Abd-el-Kader. 1807–1883. Emir of Algeria. Led the Arabians, about 1830, in hostilities against the French, then beginning to invade his country. After a brave struggle he was vanquished in 1847 and imprisoned in France. In 1860, risking his own life, he averted the massacre of thousands of Christians in Syria.

Abdur Rahman Khan. 1845–.... Amir of Afghanistan.

Abdul-Aziz. 1830–1876. Sultan of Turkey.

Abdul-Hamid II. 1842–..... Sultan of Turkey.

Abelard, Pierre. 1079–1142. French orator and philosopher.

Abercrombie, James. 1706–1781. British general in America.

Abercrombie, John. 1781–1844. Scottish metaphysician.

Abercromby, Sir Ralph. 1734–1801. British general.

Abernethy, John. 1764–1831. Eng. physician and anatomist.

About, Edmond François Valentin. 1828–1885. Fr. author.

Abraham, or Abram. Born about 2000 B.C., and died at the age of 175. Hebrew prince and patriarch.

Acier, Michel Victor. 1736–1799. French sculptor.

Acilius Glabrio, Manius. Fl. 191 B.C. Consul of Rome.

Acosta, Jose de. 1539?–1600. Spanish Jesuit, missionary and author.

Adair, John. 1757–1840. American general and statesman.

Adam. 4000 B.C. Father of the human race.

Adams, Charles Francis. 1807–1888. American statesman and diplomatist. Son of J. Q. A. Negotiated the Treaty of Geneva.

Adams, John. Born at Braintree, Mass., 1735; died, 1826. American statesman and diplomatist. First vice-president and second president of the United States; one of the negotiators of the treaty of peace with Great Britain, 1782. Defeated by Jefferson for the presidency in 1800, he retired to private life, disliked by both prevailing parties. His talents, patriotism and public services, however, entitle him to be regarded as one of the greatest of the founders of the American republic.

Adams, John Quincy. 1767–1848. Son of J. A. American statesman and diplomatist. Sixth president of the United States, being elected by the House, not one of the four candidates in 1824 — Adams, Clay, Jackson and Crawford, all members of the same party — having a majority. Defeated by Jackson in 1828. Elected to the House in 1830, his oratory gained for him the title "Old Man Eloquent," and he was distinguished for his unremitting devotion to public business. He was a member of the House until 1848, in which year, while in his seat at the Capitol, he received a stroke of paralysis, which caused his death.

Adams, Samuel. 1722–1803. Governor of Massachusetts; one of the popular leaders of the Revolution; a signer of the Declaration of Independence.

Adanson, Michel. 1727–1806. French naturalist.

Addison, Joseph. 1672–1719. English poet, moralist and dramatist. Requested by Lord Godolphin to write a poem on the battle of Blenheim, Addison composed "The Campaign," which procured for him a great public applause and a lucrative government position. He became under-secretary of state in 1705, and was elected to Parliament in 1708. Dr. Johnson says of him: "He not only made the proper use of wit himself, but taught it to others. * * * He has restored virtue to its dignity, and taught innocence not to be ashamed." His contributions to the *Tatler* and the *Spectator* are examples of his graceful style and genial spirit.

Adelaide. 1792–1849. Consort of William IV. of England.

Adelung, Johann Christoph. 1732–1806. German philologist.

Adrian I. Pope, from 772–795. **II.**, 867–872. **III.**, 884–885. **IV.**, 1154–1159. **V.**, 1276; died same year. **VI.**, 1521–1523.

Æschines. 398–314 B.C. Athenian orator; rival of Demosthenes.

Æsop. 619?–564 B.C. Greek fabulist. Being a slave, he was liberated by his master on account of his talents.

Æsopus. Fl. 1st century B.C. Roman tragedian.

Ætion. Fl. end of 4th century. Greek painter.

Affre, Denis Auguste. 1793–1848. Archbishop of Paris. Killed during the insurrection of June, 1848, in an effort to arrest the carnage.

Aga, Mohammed. 1734–1797. Founder of the reigning Persian dynasty; assassinated.

Agamemnon. ....–.... Generalissimo of the Greek forces during the Trojan war.

Agassiz, Louis. 1807–1873. Swiss naturalist; professor at Harvard; founder of museum of comparative zoölogy, Cambridge. *Researches on Fossil Fishes.*

Agatharchus. Fl. 480 B.C. Greek painter, said to have been the first to adopt the rules of perspective.

Agnesi, Maria Gaetana. 1718–1799. Italian lady possessing rare talents for languages and mathematics.

Agricola, Cnæus Julius. 37–93. Roman general; built a line of fortresses across Scotland.

Agrippa, Marcus Vipsanius. 63–12 B.C. Roman soldier and statesman.

Agrippina Augusta. ....–60 A.D. Mother of Nero; noted for her cruelty and immorality; poisoned her uncle and second husband, the Emperor Claudius; executed by order of Nero.

Aiken, John. 1747–1822. English writer. *General Biography.*

Ainsworth, Robert. 1660–1743. English classical scholar.

Ainsworth, William Harrison. 1805–1882. English novelist. *Jack Sheppard, Guy Fawkes,* etc.

Airy, Sir George Biddell. 1801–.... Astronomer Royal of England.

Akbar. 1542–1605. Most illustrious of the Mogul emperors.

Akenside, Mark. 1721–1770. English physician, poet and classical scholar. *Pleasures of the Imagination.*

Aladdin. Fl. 1375. Son of Osman and organizer of the Janissaries.

Alaric. 350?–410. King of the Visigoths; conquered Rome.

Albert, or Albert Francis, Augustus Charles Emmanuel, Prince of Saxe-Coburg-Gotha. 1819–1861. Consort of Queen Victoria.

Albert Edward, Prince of Wales. 1841–.... Heir-apparent to the British Crown.

Alboin. ....–573. King of the Lombards. Assassinated at the instigation of his wife, whom he had requested to drink wine from the skull of her father.

Alboni, Marietta. 1824–.... Italian vocalist; married Count Pepolo; retired from the stage, 1863.

Albuquerque, Alfonso, Marquis de. *The Great.* 1453–1515. Portuguese conqueror.

Alcibiades. 450–404 B.C. Athenian general. Assassinated.

Alcott, Amos Bronson. 1799–1888. American philosopher and teacher.

Alcott, Louisa May. 1833–1888. American authoress; acted as hospital nurse during the civil war. *Little Women: An Old-Fashioned Girl,* etc.

Aldrich, Thomas Baily. 1836–.... American poet and novelist. *Story of a Bad Boy; Margery Daw; Baby Bell; Prudence Palfrey,* etc.

Alembert, Jean le Rond d'. 1717–1783. French geometer.

Alexander. *The Great.* 356–324 B.C. King of Macedon. "The youth who all things but himself subdued."—*Pope.* Taught by Aristotle. Ascended the throne of Macedon 336, destroyed Thebes and was chosen commander of the Greeks against Persia. He invaded Asia Minor in 334, defeating Darius on the banks of the Granicus. In 333 he almost annihilated the Persian army at the battle of Issus. Cut the Gordian knot and caused the Ammonian oracle to declare him the son of Jupiter Ammon. Captured Tyre in 332, and, having invaded Egypt, founded Alexandria. In 331 he defeated Darius at the decisive battle of Arbela. Becoming elated by his successes, he claimed the homage due to a god, stabbing his foster-brother Clitus, for refusal to pay such homage. Invaded India in 327, advancing as far as the Hyphasis. Died at Babylon of a fever said to have been aggravated by excessive drinking.

Alexander I. 1777–1825. Emperor of Russia. II., 1818–1881; assassinated by the Nihilists. III., 1845–....

Alexander I. Pope from 108 to 117. II., 1061–1073. III., 1159–1181. IV., 1254–1261. V., 1409–1410. VI., 1492–1503.

Alexander I. ....–1124. King of Scotland. II., 1198–1249. III., 1241–1286.

Alexander, Archibald. 1772–1851. Am. author and divine.

Alexander, James Waddell. 1804–1859. Son of A. A. American author and divine.

Alexander, Joseph Addison. 1809–1859. Son of A. A. American theologian and orientalist.

Alexander, William. *Lord Stirling.* 1726–1783. American Revolutionary general.

Alfieri, Vittorio. 1749–1803. Italian poet.

Alfonso XII. 1857–1885. King of Spain. XIII., 1886–....

Alfred. *The Great.* 849?–901. King of the West Saxons. Established schools and a system of police, and founded a navy.

Algardi, Alessandro. 1600?–1654. Italian sculptor.

Alger, William Rounseville. 1823–.... Am. author and divine.

Allen, Ethan. 1742–1789. American Revolutionary commander. With only eighty-three men, in 1775, he captured Ticonderoga and Crown Point.

Abraham a Sancta Clara. (Ulrich Megerle). 1642–1709. Ger. pulpit orator; chaplain at the court of Vienna.

Abt, Franz. 1819–1885. Ger. musician and composer. *When the Swallows Homeward Fly; Oh, Ye Tears; Over The Stars is Your Rest.*

Albani, Emma. 1850–.... American vocalist.

Allen, William F. 1847–.... American perfecter of the new system of standard time.

Allen, William Henry. 1784–1813. Am. naval commander.

Allibone, Samuel Austin. 1816–.... Am. author. *Critical Dictionary of English Literature.*

Allison, William R. 1829–.... Am. lawyer and statesman.

Allston, Washington. 1779–1843. American painter.

Alma-Tadema, Lawrence. 1836–.... Belgian painter.

Alva, Fernando Alvarez de Toledo, Duke of. 1508–1582. Spanish commander in the Netherlands, infamous for his cruelties.

Ambrose, Saint. 340?–397. One of the fathers of the church.

Ames, Fisher. 1758–1808. Am. orator and statesman.

Amherst, Jeffrey. *Lord Amherst.* 1717–1797. British general and field-marshal and governor of Virginia.

Ampere, Andre Marie. 1775–1836. French mathematician and natural philosopher.

Anacreon. B.C. 560?–478. Greek poet. Many of his poems have been rendered into English by Moore.

Anaxagoras. B.C. 500–428. Greek philosopher. "The father of modern science."

Andersen, Hans Christian. 1805–1875. Danish author and novelist.

Anderson, Maj. Robert. 1805–1861. Defender of Ft. Sumter.

Anderson, Mary. (Mme. Navarro). 1859–.... Am. act.

Andrassy, Julian, Count. 1823–1890. Hun. statesman.

Andre, John. 1751–1780. English spy; hanged for his connection with the contemplated treason of Arnold.

Andrew, John Albion. 1818–1867. American statesman and abolitionist; governor of Massachusetts.

Andros, Sir Edmund. 1637–1714. British colonial governor of New England.

Anjou. Famous noble house of France.

Anne of Austria. 1601–1666. Queen of France.

Anne. 1664–1714. Queen of England; last of the Stuarts.

Anthon, Charles. 1797–1867. American classical scholar.

Anthony, St. 251–356? Egyptian founder of monachism.

Anthony, Henry B. 1815–1884. U. S. Senator.

Anthony of Padua, St. 1195–1231. Monk of Franciscan order.

Anthony, Susan B. 1820–.... American "woman's rights" advocate.

Antigonus. *Cyclops.* B.C. 382?–301. General of Alexander the Great.

Antiochus I. King of Syria and Babylonia; reigned B.C. 280–261. II., reigned B.C. 261–246; poisoned by his queen, Laodice. III. (*The Great*), reigned B.C. 223–187.

Antisthenes. Fl. 400 B.C. Greek philosopher; regarded as the founder of the Cynic school.

Antoinette, Marie. 1755–1793. Queen of Louis XVI. of France; guillotined.

Antonelli, Giacomo. 1806–1876. Italian cardinal.

Antonius, Marcus. *Mark Antony.* B.C. 93?–30. Roman general and statesman.

Applegarth, Robert. 1831–.... Leader of the workingmen of England.

Aquinas, Thomas. Saint. *The Angelic Doctor.* 1224–1274. Theologian, teacher and writer; member of the order of St. Dominic.

Arabi Pasha. 1834–.... Egyptian revolutionist.

Aram, Eugene. 1704–1759. English scholar; noted for his learning no less than for his tragic fate. Executed for the murder of one Daniel Clark, whom he is said to have killed to procure means for prosecuting his studies. The chief character in one of Bulwer's novels.

Arbuthnot, John. 1675–1735. Scottish physician.

Archimedes. B.C. 287?–212. Greek mathematician and natural philosopher.

Argyll (or Argyle), Archibald Campbell, eighth earl. 1598–1661. Scottish Covenanter; defeated by Montrose; executed for treason.

Argyll (or Argyle), George Douglas Campbell, seventh duke. 1823–.... English statesman and author. *The Reign of Law.*

Ariosto, Ludovico. 1474–1533. Italian poet. *Orlando Furioso.*

Aristides. B.C. ....–468? Athenian general and statesman.

Aristophanes. B.C. 444?–380? Greek comic poet.

Aristotle. *The Stagirite.* B.C. 384–322. Greek philosopher; tutor of Alexander the Great. *Ethics.*

Arius. 255?–336? Patriarch of Alexandria and founder of the Arian schism.

Arkwright, Sir Richard. 1732–1792. English manufacturer and inventor of the spinning-jenny.

Arminius. B.C. 16–21 A.D. Ger. hero. See *Hermann.*

Arminius, Jacobus (Jacob Harmen). 1560–1609. Dutch founder of the Arminian theology.

Armitage, Edward. 1817–.... Eng. historical painter.

Armstrong, John. 1709–1779. Scottish poet and physician.

Armstrong, William George, Baron. 1810–.... English inventor of the Armstrong gun.

Arnaud, Henri. 1641–1721. Leader of the Waldenses.

Arndt, Ernst Moritz. 1769–1860. German poet and writer.

Arnheim, Johann Georg von. 1581–1641. German general and diplomatist.

Arnim, Harry Carl Edward von. 1824–1879 Prussian diplomatist.

Arnold, Benedict. 1740–1801. American general and traitor. His plot to betray West Point, one of the most important of American fortresses, into the hands of the British, was betrayed by the capture of Major Andre, and he barely escaped. He became a colonel in the British army, and is said to have received £6,315 from the British as indemnity for the loss he sustained by his treachery.

Arnold of Brescia (or Arnaldo). ....–1155. Italian reformer, orator and popular leader.

Arnold, Edwin. 1832–.... English journalist and poet. *Light of Asia. Light of the World.*

Arnold, Matthew. 1822–1888. English author, poet and critic. *God and the Bible; The Strayed Reveller; Essays on Criticism,* etc.

Arnold, Thomas. 1795–1842. English historian and master of Rugby. *History of Rome.*

Arnold von Winkelried. ....–1386. Swiss patriot, who broke the Austrian phalanx at the battle of Sempach by throwing himself against the points of their spears, gathering in his arms all the spears within reach. He was mortally wounded, but his brave action decided the fate of the battle in favor of his countrymen.

Artemisia. Fl. 480 B.C. Queen of Halicarnassus. Joined the fleet of Xerxes against Greece, and commanded her own ship in the battle of Salamis with courage and ability.

Artemisia. Fl. 350 B.C. Consort of Mausolus, Prince of Caria, and after his death erected in his honor a tomb numbered among the seven wonders of the world.

Artevelde, Jacob van. 1300?–1345. Leader of the people of Ghent.

Artevelde, Philip van, son of J. v. A. 1340–1382. Leader of the insurrection in Flanders.

Arthur, Chester Allan. 1831–1886. Twenty-first President of the United States. Born at St. Albans, Vermont; read law, was admitted to the bar and began practice in New York city; 1860, quartermaster-general on the staff of Gov. Morgan; 1871, collector of the port of New York, but superseded, 1878, by Gen. Merritt; 1880, placed in nomination for vice-president by the republican party and elected; succeeded to the presidency on the death of Garfield, Sept. 19, 1881.

Arthur, Timothy Shay. 1809–1841. American author. *Lights and Shadows of Real Life; Ten Nights in a Bar-Room,* etc.

Ascham, Roger. 1515–1568. English scholar and author.

Ashburton, Alexander Baring, Lord. 1774–1848. English diplomatist. (Ashburton treaty.)

Aspasia of Miletus. B.C. ....–432? Mistress of Pericles, the Athenian law not permitting a citizen to marry a foreigner. Socrates called himself one of her disciples.

Astor, John Jacob. 1763–1848. Wealthy American merchant, native of Heidelberg, Germany. Settled in New York city, and entered the fur trade with great success, establishing trading posts in the northwest as far as the Pacific Ocean and founding Astoria in 1811. He next made extensive investments in real estate, and when he died his property was estimated at twenty millions. Founded the Astor Library.

Atahualpa. ....–1533. Last Inca of Peru.

Athanasius. 296?–373. Greek father of the church.

Athelstan. 895?–941. King of England.

Athenagoras. Fl. 168. Greek Christian philosopher.

Atterbury, Francis. 1662–1732. Eng. prelate and politician.

Attila. *The Scourge of God.* ....–453. King of the Huns.

Attucks, Crispus. ....–1770. Mulatto leader of mob in Boston massacre

Auber, Daniel François Esprit. 1784–1871. French composer. *Fra Diavolo; Masaniello.*

Audubon, John James. 1780–1851. American ornithologist.

Auerbach, Berthold. 1812–1882. German Jewish author and poet. *The Country House on the Rhine.*

Augereau, Pierre François Charles, Duc de Castiglione. 1757–1816. French general. The son of a mechanic, he received but little education. Enlisted as a private in the French army in 1792, but was rapidly promoted, and at the end of a year had attained to the rank of general of division. Throughout his successful military career he exhibited remarkable valor and ability.

Augustine, Saint. 354–430. Latin father of the church.

Augustus I. 1670–1733. King of Poland and elector of Saxony.

Augustus Cæsar. B.C. 63–A.D. 14. First Emperor of Rome.

Aumale, Henri Eugene Philippe Louis d'Orleans, Duc d'. 1822–.... French general. Son of King Louis Philippe.

Aurelianus. 212–275. Roman emperor.

Aurelius Antoninus, Marcus. *Marcus Aurelius.* 121–180. Roman emperor and philosopher

Aurung-Zebe. 1618–1707. Emperor of Hindostan.

Ausonius. 310–394? Latin poet.

Austen, Jane. 1775–1817. English author.

Austin, Saint. Fl. 597. The apostle of England.

Austin, Stephen F. ....–1836. Founded the first colony in Texas.

Avicenna. 980–1037. Arabian physician.

Aytoun, William Edmondstoune. 1813–1865. Scottish poet.

BABER, Mohammed. 1483?–1530. Founder of the Mogul empire in India.

Baccio della Porta. *Fra Bartolommeo di San Marco.* 1469-1517. Italian painter, member of the order of St. Dominic. *Last Judgment; Marriage of St. Catherine; Virgin on a Throne.*

Bach, Johann Sebastian. 1685–1750. German composer and musical director, distinguished also for his skill as a performer on the organ and the piano. *The Nativity.*

Bache, Alexander Dallas. 1806–1867. American philosopher and savant; great-grandson of Dr. Franklin.

Bache, Franklin. 1792–1864. Am. physician and chemist.

Back, Sir George. 1796–1878. English Arctic navigator.

Bacon, Francis, Baron Verulam, Viscount St. Albans. *Lord Bacon.* 1561-1626. English statesman, jurist and philosopher. Son of Sir Nicholas Bacon, keeper of the great seal under Elizabeth. His youthful precocity caused Queen Elizabeth to call him her "little lord keeper." Studied at Trinity College, and at 15 began to oppose the philosophy of Aristotle. Called to the bar, and made queen's counsel at 28. Solicitor-general, 1607; judge of the marshal's court, 1611; attorney-general, 1613; lord keeper, 1617; lord high chancellor, 1619. Charged with gross bribery and corruption in Parliament, 1621, he pleaded guilty, and was sentenced to pay a fine of £40,000, and to be imprisoned during the royal pleasure, and incapacitated from holding public office. He regained his liberty after two days' imprisonment, his fine, too, being remitted by King James, who also allowed him a pension of £1,200 per annum. He spent the remainder of his life in retirement, diligently pursuing the study of literature and science. The belief

that Bacon is the real author or at least the principal author of the plays attributed to Shakespeare has of late years found many adherents, and numerous books on the subject have been published. *The Wisdom of the Ancients; Novum Organum.*

Bacon, Nathaniel. 1630?–1677. Virginia patriot, born in England.

Bacon, Roger. *The Admirable Doctor.* 1214–1292. English philosopher. *Opus Majus.*

Baconthorp, John. *The Resolute Doctor.* ....–1346? English monk and philosopher.

Baffin, William. 1580–1622. English navigator. (Baffin's Bay.)

Bailey, Philip James. 1816–.... English lawyer and poet. *Festus; The Mystic.*

Baillie, Joanna. 1762–1851. Scottish poetess. *The Family Legend; Plays on the Passions.*

Baillie, Matthew. 1761–1823. Scottish physician.

Baillie, Robert. 1602?–1662. Scottish theologian.

Bailly, Jean Sylvain. 1736–1793. French astronomer and philosopher. 1789, first president of the States-General; mayor of Paris same year. Endeavoring, with Lafayette, to curb the violence of the revolutionists, he caused the National Guard to fire on a riotous mob in the Champ de Mars, in 1791, thus incurring the enmity of the people. Executed by the Jacobins.

Baily, Edward Hodges. 1788–1867. English sculptor.

Baily, Francis. 1774–1844. English astronomer.

Bainbridge, William. 1774–1833. Am. naval commander.

Baird, Sir David. 1757–1829. Scottish general.

Baird, Spencer F. 1823– .... American naturalist.

Bajazet (or Bayazeed). 1347–1403. Sultan of the Ottomans. Subjugated Bulgaria, Asia Minor, and a portion of Greece, and gained a victory over the Hungarians, French and Poles at Nicopolis, in 1396. Defeated and captured in 1401 by Tamerlane, by whom he is said to have been confined in an iron cage.

Baker, Sir Samuel White. 1821– .... English African explorer, and author of geographical and literary works. In 1847 he established a sanatorium and prosperous agricultural settlement in the mountains of Ceylon, 6,200 feet above sea level, whither he conveyed emigrants and the best breeds of sheep and cattle. In 1861-4 explored, at his own expense, the region lying around the sources of the White Nile; discovered and named Lake Albert N'yanza, and found the exit of the Nile. In 1869, the sultan of Turkey placed at his disposal 1,500 troops, with which another expedition was made to the great African lakes.

Baker, Valentine, Pasha. English officer and commander of Egyptian troops in the Soudan.

Balboa, Vasco Nuñez de. 1475?–1517. Spanish discoverer. Discovered the Pacific Ocean, 1513. The jealousy of his superior officers caused his conviction on a charge of treason, for which he was executed.

Baldwin I. 1058–1118. King of Jerusalem; brother of Godfrey de Bouillon.

Balfe, Michael William. 1808–1870. Irish composer. *The Bohemian Girl.*

Baliol, Edward. ....–1363. King of Scotland.

Baliol, John. ....–1269. English baron; father of Edward Baliol.

Baliol, John de. 1259?–1314. Son of the preceding. King of Scotland; rival of Bruce.

Ballou, Hosea. 1771–1852. American theologian; founder of the denomination of Universalists.

Balmaceda, Jose Manuel. 1840–1891. President of Chili. Deposed and committed suicide.

Balzac, Honoré de. 1799–1850. French novelist.

Bancroft, George. 1800–1891. American historian and diplomatist. Minister to Germany and to England; secretary of the navy. *History of the United States*, which has been translated into all the principal languages of Europe.

Baner (or **Banier**), Johan. 1595–1641. Swedish general.

Banks, Nathaniel Prentiss. 1816–.... American general and politician. Native of Massachusetts; worked during boyhood in a cotton factory; learned the machinist's trade; edited a country newspaper; admitted to the bar; elected to Legislature of his native state in 1849, and three years later became speaker. Sent to Congress in 1852 as a Democrat, and in 1854 re-elected by the American and Republican parties. Speaker of House in 1855. Served three terms as Governor of Massachusetts, and in 1861 was appointed major-general of volunteers. After the war was sent to Congress in 1866, 1868 and 1870. Supported Horace Greeley for presidency in 1872. Re-elected to Congress in 1876 by Democrats and disaffected Republicans.

Banks, Thomas. 1735–1805. British sculptor.

Banneker, Benjamin. 1731–1806. American negro mathematician.

Barbarossa, Hadher. 1476?–1546. Corsair king of Algiers.

Barbaroux, Charles Jean Marie. 1767–1794. French representative and Girondist; beheaded by the Jacobins.

Barbauld, Anna Letitia. 1743–1825. English authoress.

Barbour, John. 1320?–1395? Scottish poet. *The Bruce.*

Barclay de Tolly, Michael, Prince. 1755–1818. Russian field-marshal.

Barclay, Robert. 1648–1690. Scottish Quaker author.

Barham, Richard Harris. 1788–1845. English divine and humorist. *Ingoldsby Legends.*

Barebone, Praise God. ....–1680. English fanatic.

Baring, Sir Francis. 1740–1810. English capitalist.

Barlow, Joel. 1755–1812. American patriot and poet.

Barnard, John G. 1815–1882. American general and writer.

Barmecides. Famous Persian family, noted for its tragic fate.

Barnes, Albert. 1798–1870. American theologian and commentator.

Barneveldt, Johan van Olden. 1549–1619. Dutch statesman.

Barnum, Phineas T. 1810–1891. American showman; native of Connecticut. *Humbugs of the World.*

Barras, Paul François Jean Nicola, Count de. 1755–1829. French statesman.

Barry, James. 1741–1806. Irish painter.

Barry Cornwall. See *Procter.*

Barthelemy Saint-Hilaire, Jules. 1805–.... French statesman and writer.

Baxter, Richard. 1615–1691. English Dissenting minister and writer. *The Saints' Everlasting Rest; Call to the Unconverted.*

Bayard, Pierre du Terrail de. 1475–1524. French warrior, whose bravery earned for him the sobriquet "The cavalier without fear and without reproach." Francis I. showed the universal reverence for Bayard's character by choosing to be knighted at his hands. Mortally wounded at Romagnano, Bayard would not allow himself to be carried from the field of battle, refusing to "turn his back to the enemy for the first time."

Bayle, Pierre. 1647–1706. French philosopher and critic.

Bazaine, François Achille. 1811–1888. French general. Made general of division during the Crimean war; held a command in the French expedition to Mexico, in 1862, with great distinction, and succeeded to the supreme command in 1863. Created a marshal of France in 1864. In the Franco-German war he surrendered the fortress of Metz, with 173,000 men, 6,000 officers, 50 generals and 3 marshals, and fled to England. He was court-martialed and sentenced to degradation and death, but the sentence was commuted to twenty years' imprisonment. Confined at the isle Sainte Marguerite, he escaped in nine months and settled in Madrid.

Beaconsfield, Benjamin Disraeli, Earl of. 1804–1880. English statesman and novelist. His first novel, *Vivian Grey*, was published at the age of 21. Entered Parliament in 1837, and became the leader of the Conservative party. Acted as chancellor of the exchequer a number of years, and in 1868 was prime minister of England for a few months. Was again called to the premiership in 1874, and was raised to the peerage. Was succeeded in 1880 by William E. Gladstone.

Beaton (or **Beatoun**), David, Cardinal. 1494–1546. Primate of Scotland.

Beattie, James. 1735–1803. Scottish poet and philosopher.

Beauharnais, Eugene de. 1781–1824. French general; son of Alexander de Beauharnais and Josephine, afterward Empress of France.

Beaumarchais, Pierre Auguste Caron de. 1732–1799. French dramatist.

Beaumont, Francis. 1586–1615. English dramatic writer; associate of John Fletcher.

Beauregard, Peter Gustavus Toutant. 1816–.... American Confederate general. Born in Louisiana; graduate of West Point; served in Mexico. Entered Confederate army in 1861, and commanded at Fort Sumter and at the first battle of Bull Run; defeated at Shiloh by Gen. Grant in 1862; defended Charleston in 1863. Mgr. La. lottery.

Becket, Thomas à. 1117–1170. Archbishop of Canterbury; high chancellor of England. Having excommunicated two bishops for complying with the king's will, he was assassinated by four barons of the royal household. Canonized in 1172.

Bede. *The Venerable.* 673?–735. English monk and ecclesiastical writer. *Ecclesiastical History of the English Nation.*

Bedford, John Plantagenet, Duke of. 1390–1435. English general. Regent of France and protector of England during the minority of Henry VI. Defeated by Joan of Arc.

Beecher, Henry Ward. 1813–1887. American divine and lecturer. Born in Connecticut. Pastor of Plymouth Congregational Church, Brooklyn, since 1847. Powerful advocate of the abolition movement. *Star Papers; Sermons.*

Beecher, Lyman. 1775–1863. American divine. Father of H. W. B. *Views on Theology.*

Beethoven, Ludwig von. 1770–1827. German composer. *Sinfonia Eroica; Lenore; Fidelio; Ninth Symphony.*

Behring, Vitus. 1680–1742? Danish navigator. Discovered *Behring's Strait;* suffered shipwreck while commanding an expedition to the northern seas and died on Behring's Island.

Belisarius. 505?–565. Byzantine general.

Bell, Sir Charles. 1774–1842. Scottish physiologist.

Bellini, Vincenzo. 1802–1835. Italian composer. *La Sonnambula; I Puritani; Norma.*

Belvedere, Andrea. 1646–1732. Italian painter.

Belzoni, Giovanni Battista. 1778–1823. Italian traveller.

Bendemann, Edward. 1811–.... German painter.

Benedek, Ludwig von. 1804–1878. Hungarian general.

Benedict I. Pope from 575 to 578. **II.,** 684–685. **III.,** 855–858. **IV.,** 900–903. **V.,** chosen pope 964 but driven from Rome by Otho I., died at Hamburg 965. **VI.,** 972–974; killed by the people of Rome. **VII.,** 975–984. **VIII.,** 1012–1024. **IX.,** ascended the pontifical chair in 1034, but was driven from Rome. **X.,** 1058–1059, when he was deposed on account of being irregularly elected. **XI.,** 1303–1304. **XII.,** 1334–1349. **XIII.,** 1724–1730. **XIV.,** 1740–1758.

Benedict XIII. 1334–1424. Anti-Pope. Original name, Pedro de Luna. Chosen pope at Avignon in 1394, while Boniface IX. reigned at Rome. Both were deposed in 1415 by the council of Constance.

Benedict, Sir Julius. 1804–1858. Ger. musician and composer in Eng. Conducted at Jenny Lind's concerts in Am.

Benezet, Anthony. 1713–1784. French philanthropist.

Bennett, James Gordon. 1800–1872. American journalist; native of Scotland; founded the *New York Herald.*

Benjamin, Park. 1809–1864. Am. journalist and poet.

Bentham, Jeremy. 1748–1832. English jurist and utilitarian philosopher.

Bentinck, William Charles Cavendish, Lord. 1774–1839. British general; governor-general of India.

Bentley, Richard. 1662–1742. English classical scholar and divine. *The Epistles of Phalaris.*

Benton, Thomas Hart. 1782–1858. American statesman. Born at Hillsboro, N. C.; removed to Tennessee, where he studied law, and commenced practice at 29. Commanded a regiment under Gen. Jackson, who, in a quarrel, attempted to strike Benton with a horse-whip, causing Benton's brother to severely wound Gen. Jackson with a pistol. Benton shortly after removed to St. Louis, where he published a political paper. Elected to the United States Senate in 1820, he continued a member of that body for thirty years, being defeated in 1850 by a division in the Democratic party on the slavery question. His advocacy of a gold and silver currency during his second term in the Senate earned for him the sobriquet of "Old Bullion." Elected in 1852 to the National House of Representatives, he earnestly opposed the repeal of the Missouri Compromise. Defeated for the governorship of Missouri in 1856. Favored Buchanan for the presidency in opposition to his son-in-law, Fremont. *A Thirty Years' View.*

Beranger, Pierre Jean de. 1780–1857. French lyric poet.

Bergerac, Cyrano de. 1620–1655. Fr. dramatist and duelist.

Beriot, Charles Auguste de. 1802–1870. Belgian violinist and composer.

Berkeley, George. 1684–1753. Irish Protestant prelate and metaphysician. *The Principles of Human Knowledge.*

Berlichingen, Götz von. *Of the Iron Hand.* 1480–1562. German warrior; hero of one of Goethe's dramas.

Berlioz, Louis Hector. 1803–1869. French composer. *The Damnation of Faust;* symphonies, *Harold, Romeo and Juliet.*

Bernadotte, Jean Baptiste Jules. 1764–1844. Marshal of France; King of Sweden and Norway as Carl XIV. Johan.

Bernard, Saint. 1091–1153. French ecclesiastic, canonized 1174. Abbot at Clairvaux, refusing other ecclesiastical preferment, but exerting great power over Europe.

Bernard de Menthon, Saint. 923–1008. Founder of the hospices of St. Bernard.

Bernardo del Carpio. Fl. 9th century. Spanish soldier.

Bernhardt, Sara (Mme. Damala). 1850–.... Fr. tragedienne.

Bert, Paul. 1833–1886. French physician and politician.

Berthier, Louis Alexandre, Prince of Wagram. 1753–1815. Marshal of France.

Berthollet, Claude Louis. 1748–1822. French chemist.

Berwick, James Fitz-James, Duke of. 1660–1734. Marshal of France; natural son of James II. of England.

Bessel, Friedrich Wilhelm. 1784–1846. Prus. astronomer.

Bessemer, Henry. 1813–.... English engineer. (Bessemer process.) Knighted 1879.

Beust, Friedrich Ferdinand von, Count. 1809–1886. German statesman.

Beza, Theodore. 1519–1605. Fr. Calvinistic theologian.

Biddle, John. The father of English Unitarians. 1615–1662. English theologian.

Biddle, Nicholas. 1786–1844. American financier.

Bierstadt, Albert. 1829–1882. American landscape painter, native of Germany.

Billings, William. 1746–1800. American musical composer.

Binney, Amos. 1803–1847. American naturalist.

Binney, Horace. 1780–1875. American lawyer.

Birney, James G. 1792–1857. American politician.

Bird, Robert Montgomery. 1803–1854. American author.

Bismarck-Schonhausen, Karl Otto, Prince. 1815–.... German statesman; chancellor of the German Empire. Retired 1890.

Bjornson, Björnstjerne. 1832–.. . Norwegian poet and novelist.

Black Hawk. 1767–1838. American Indian chief.

Black, William. 1841–.... Scottish author. *A Princess of Thule; MacLeod of Dare; A Daughter of Heth.*

Blackburn, Joseph Clay Stiles. 1838–.... Am. statesman.

Blackstone, Sir William. 1723–1780. English jurist. *Commentaries on the Laws of England.*

Blackwood, William. 1776–1817. Scottish publisher. *Blackwood's Magazine.*

Blaine, James Gillespie. 1830–.... American statesman. Born in Pennsylvania; removed to Maine, where he edited the *Portland Advertiser;* served four terms in the Legislature; in Congress from 1862 to 1876, and speaker for three terms. Prominent candidate for the Republican nomination for the presidency in 1876 and 1880. Chosen United States senator in 1877, but resigned to accept the secretaryship of state under Garfield.

Blair, Hugh. 1718–1800. Scottish divine and rhetorician.

Blake, Robert. 1599–1657. British admiral, regarded as the founder of England's naval supremacy.

Blake, William. 1757–1828. English poet and artist.

Blanc, Jean Joseph Louis. 1813–1883. French journalist, historian and politician.

Blavatsky, Helena. 1831–1891. Fo'nder Theosophical So.

Blennerhasset, Harman. 1770–1831. Friend and accomplice of Aaron Burr.

Blessington, Margaret, Countess of (*née* Power). 1789–1849. Beautiful and accomplished Irish lady.

Blind, Carl. 1820–.... German radical.

Bloomfield, Robert. 1766–1823. English poet. A tailor's son and a shoemaker's apprentice. *The Farmer's Boy.*

Blucher, Gebhard Lebrecht von. *Marschall Vorwärts.* 1742–1819. Prussian field-marshal. Decided the battle of Waterloo.

Blumenthal, Leonard von. 1810–.... Prussian general and strategist.

Boabdil. ....–1536? Last Moorish king of Granada.

Boadicea. ....–62. British queen.

Bobadilla, Francisco de. Fl. 1500. Spanish administrator who sent Columbus in chains to Spain.

Boccaccio, Giovanni. 1313–1375. It. novelist. *Decameron.*

Bodenstedt, Friedrich Martin. 1819–.... German poet and author.

Boerhaave, Herman. 1668–1738. Dutch physician and philosopher.

Boethius, Anicius Manlius Torquatus Severinus. 475–525? Roman statesman and philosopher. Falsely charged with treason, he was beheaded. *De Consolatione Philosophiæ.*

Bogardus, James. 1800–1874. American inventor.

Bohn, Henry George. 1800–.... English publisher.

Boileau-Despreaux, Nicolas. 1636–1711. French poet and satirist.

Boleyn, Anne. 1507?–1536. Second queen of Henry VIII. of England. Beheaded.

Bolingbroke, Henry St. John, Viscount. 1678–1751. English author, orator and politician. *Dissertation on Parties.*

Bolivar, Simon. 1783–1830. Liberator of the South American colonies.

Bonaparte, Charles Louis Napoleon. *Napoleon III.* 1808–1873. Son of Louis Bonaparte. Emperor of the French. As claimant to the throne of France, he attempted in 1836 to take Strasburg, but was banished. In 1840 he was imprisoned in Havre for an attempted insurrection at Boulogne, but escaped to England in 1846. Returning to France after the revolution of 1848, he was elected president. He gained the support of the army, and abolishing popular representation by the *coup d'etat* of 1851, was declared emperor. In 1853 he married Eugenie, Countess de Teba. Having surrendered at Sedan, after the decisive battle of the Franco-German war, he was deposed and retired to Chiselhurst, in England, where he died.

Bonaparte, Jerome. 1784–1860. Youngest brother of Napoleon I. King of Westphalia.

Bonaparte, Joseph. 1768–1844. Eldest brother of Napoleon I. King of Spain.

Bonaparte, Louis. 1778–1846. Brother of Napoleon I. King of Holland.

Bonaparte, Lucien, Prince de Canina. 1775–1840. Brother of Napoleon I.

Bonaparte, Napoleon. *Napoleon I.* 1769–1821. Emperor of the French. Born at Ajaccio, Corsica. Attended a military school from 1779 to 1784, and showed particular aptitude for history and mathematics. Entered the army as sub-lieutenant in 1785, and in 1792 had risen to the rank of captain of artillery. In 1793 he submitted a plan for the reduction of Toulon, held by the English and Spaniards, and was entrusted with its execution. His success in this undertaking won for him a commission as brigadier-general. In 1794, on the fall of Robespierre, Napoleon was suspended and put under arrest, his detention, however, being of short duration. In the spring of 1795, on the remodelling of the army, he was again suspended, and placed upon half-pay, the only reason given by the authorities being that he was too young to command the artillery of an army. In the fall, on the breaking out of a formidable insurrection led by the National Guard, the whole force of insurgents numbering more than 30,000, the convention recalled Napoleon, who, with only 5,000 regulars and 1,500 volunteers, gained a brilliant victory after a brief but sanguinary engagement. This victory made him virtually commander-in-chief of the army of the interior. In 1796 he was appointed to the command-in-chief of the army of Italy, and in the same year married Josephine de Beauharnais. In his very first campaign Napoleon appeared a consummate general. His peculiar mode of attack consisted in precision of movement, concentration of forces and formidable charges upon a determinate point. In a few weeks he gained four victories, conquered Lombardy and laid siege to Mantua, which he captured after almost annihilating three Austrian armies. Napoleon then turned his arms against the Pope, compelling him to pay 30,000,000 lires and surrender many valuable works of art. After defeating another Austrian army sent to Italy, Napoleon concluded a treaty securing his brilliant success. In 1798 he was given command of a powerful expedition into Egypt, the intention being to strike at the power of Great Britain, and gained a decisive victory over the Mamelukes and Turkish auxiliaries at the battle of the Pyramids, and another at Aboukir. Returning to France, he overthrew the Directory and was elected first consul. In 1800 he gained the great victory of Marengo. Made peace with England 1802, granted general amnesty, established public order, re-established the Catholic faith, and produced his *Civil Code.* Napoleon became emperor in 1804, and engaged in war with England, Russia, Sweden and Prussia. Divorced from Josephine in 1809, he married Maria Louise, daughter of the Emperor of Austria, in 1810. In 1812 occurred the ill-fated Russian campaign, Napoleon's loss being estimated at 450,000 men. Beaten at Leipzig, 1813, he made a disastrous retreat. In 1814 the allies entered Paris, compelled Napoleon to abdicate, and sent him to Elba, granting him the sovereignty of that island, with a yearly pension of 6,000,000 francs. Returning again to France, he was enthusiastically received and raised an army of about 125,000, but was completely defeated at Waterloo, 1815. He abdicated again, and, unable to carry out his intention of embarking for America, he surrendered to the captain of a British man-of-war. Carried to the island of St. Helena, he died there in 1821 after nearly six years' confinement.

Bonaparte, Napoleon Joseph Charles Paul. *Prince Napoleon.* 1822–1891. Son of Napoleon I. and Maria Theresa.

Bonaparte, Napoleon François Charles Joseph. *Napoleon II.* 1811–1832. Son of Napoleon I. and Maria Theresa.

Bonaventura, Saint. *The Seraphic Doctor.* 1221–1274. Italian theologian.

Bonheur, Rosa (or Rosalie), 1822–.... French painter of animals.

Boniface I. Pope, ruling from 419 to 422. **II.,** 530–532. **III.,** elected 607 and died same year. **IV.,** 608–615. **V.,** 619–624; distinguished for his efforts to convert the Britons. **VI.,** died in 895, fifteen days after his election to the Papacy. **VII.** (Anti-Pope), elected 974, during reign of Benedict VI.; driven from Rome, but returned in 985, imprisoning John XIV., who is said to have been starved to death; died 985. **VIII.,** 1294–1303. **IX.,** 1389–1404.

Boniface, Winfred, Saint. *Apostle of Germany.* 680–755?

Bonner, Edmund. *Bloody Bonner.* 1490?–1569. Bishop of London, noted for his persecution of the Protestants.

Bonneville, Benjamin L. E. 1795?–1878. American soldier and traveller.

Bonnivard, François de. 1496–1570. The hero of Byron's *Prisoner of Chillon.*

Boone, Daniel. 1735–1820? American pioneer. Born in Pennsylvania, but removed in boyhood to North Carolina. Visited Kentucky, hitherto unexplored, in 1769, and emigrated to that State with his own and five other families in 1773, constructing a fort at Boonsborough in 1775. Captured by the Indians, he was adopted by them, but escaped and returned to the fort, which was shortly after attacked by Indians under the British flag. The fort was ably defended, two of Boone's sons, however, being killed. Boone lost his lands in Kentucky in consequence of a defective title, and, removing to Missouri, pursued the occupation of a hunter and trapper.

Booth, Edwin. 1833–.... Son of Junius Brutus Booth. American tragedian.

Booth, John Wilkes. 1835–1865. Son of Junius Brutus Booth. American actor, who became infamous as the assassin of Abraham Lincoln, whom he shot at the theatre on the evening of April 14th, 1865. Effected his escape, but was traced into Virginia, where, refusing to surrender, he was shot.

Booth, Junius Brutus. 1796–1852. English tragedian.

Borden, Simeon. 1798–1856. American civil engineer.

Borgi, Giovanni. 1735–1802. Italian founder of ragged schools.

Borgia, Cesare, Duc de Valentinois. 1457–1507. Natural son of Alexander VI. Italian cardinal and military leader. Made cardinal in 1492, but afterwards secularized. Notorious for cunning, perfidy and cruelty.

Borgia, Francisco. See *Francis, Saint.*

Borgia, Lucrezia, Duchess of Ferrara. ....–1523. Sister of Cesare Borgia. Distinguished for beauty and talents, and a patron of learning, but contemporaneous writers differ in their estimation of her character.

Borromeo, Carlo, Saint. 1538–1584. Italian cardinal, noted for benevolence and care of the sick.

Borrow, George. 1803–1881. English author and traveller.

Bos, Hieronymus. 1450?–1500. Dutch painter.

Boscawen, Edward. 1711–1761. English admiral.

Bossuet, Jacques Benigne. 1627–1704. French prelate, orator and controversialist.

Boswell, James. 1740–1795. Scottish lawyer; biographer of Dr. Johnson.

Bothwell, James Hepburn, Earl of. 1526?–1577? Scottish conspirator; husband of Mary of Scotland.

Bottcher, Johann Friedrich. 1682–1719. Inventor of Dresden china.

Boucicault, Dion. 1822–1890. Irish dramatist, residing in New York since 1870. *Colleen Bawn; The Octoroon.*

Boulanger, Geo. Ernest Jean Marie. 1837–1891. Fr. gen.

Bouillon, Godfrey de. 1060?–1100. Leader of the first Crusade.

Bourbaki, Charles Denis Sauter. 1816–.... Fr. general.

Bourbon. The name of a famous dynasty reigning in France from 1589 to 1848, excepting the republic and the empire of the first Napoleon.

Bourbon, Charles, Duc de. *Constable Bourbon.* 1490–1527. French general. Killed after mounting the wall of Rome at the head of his troops. A prominent character in Byron's *The Deformed Transformed.*

Bourdaloue, Louis. 1632–1704. French Jesuit orator.

Bourdon, Sebastien. 1616–1671. French painter.

Bourne, Hugh. 1772–1852. English founder of Primitive Methodism.

Bowditch, Nathaniel. 1773–1838. American mathematician; son of a cooper. *Navigation.*

Bowdoin, James. 1727–1790. American statesman.

Bowles, Samuel. 1826–?878. American journalist.

Bowles, William Lisle. 1762–1850. English poet.

Bowring, Sir John. 1792–1872. Eng. scholar and statesman.

Boyce, William. 1710–1779. Eng. organist and composer.

Boydell, John. 1719–1804. Eng. engraver and art publisher.

Boyle, Robert. 1626–1691. Irish experimental philosopher and philanthropist. *Disquisition on Final Causes.*

Bozzaris, Marcos. 1790–1823. Patriotic leader in the Greek war for independence. Slain in a night attack upon the Turks.

Braddock, Edward. 1715?–1755. English general in America. Killed by Indians.

Braddon, Mary Elizabeth. 1837–.... English novelist; editor of *Belgravia. Lady Audley's Secret; Dead Sea Fruit; An Open Verdict.*

Bradford, William. 1590–1657. Governor of Plymouth colony.

Bradford, William. 1660–1752. First printer in Pennsylvania.

Bradlaugh, Charles. 1834–1891. British statesman.

Bradley, Joseph. 1813– ... Judge supreme court U. S.

Bradstreet, John. 1711–1774. American major general.

Bragg, Braxton. 1815–1876. Confederate general.

Brahe, Tycho. 1545–1601. Swedish astronomer.

Brainerd, David. 1718–1747. American missionary.

Bramante d' Urbino. *Donato Lazari.* 1444–1514. Italian architect of St. Peter's.

Brandt, Joseph. *Thayendanega.* 1742?–1807. Half-breed chief of the Mohawks.

Breckenridge, John Cabell. 1821–1875. American statesman and Confederate general. Born in Kentucky. Vice-president 1857-61. Democratic candidate for the presidency in 1860. Elected to the United States Senate from Kentucky in 1861, but resigned to enter the Confederate army. Confederate secretary of war, 1865.

Bremer, Fredrika. 1802–1865. Swedish novelist. *The Neighbors; The Homes of the New World.*

Brentano, Clemens. 1777–1842. German novelist and poet.

Brenghel, Jan. 1569–1625. Flemish painter.

Brewster, Sir David. 1781–1868. Eng. optician and physicist.

Brian Boru (or *Boroihme*). 727?–1014. King of Ireland.

Bridget, Saint. 1302–1373. Patroness of Ireland.

Bridgman, Laura. 1829–1889. American blind deaf-mute, noted for her mental acquirements.

Bright, John. 1811–1889. English statesman and orator.

Bright, Richard. 1789–1858. English physician.

Brillat-Savarin, Anthelme. 1755–1826. French author. *Physiology of the Taste.*

Brissot de Warville, Jean Pierre. 1754–1793. French leader of the Girondists; beheaded.

Broglie, Charles Jacques Victor Albert, Duc de. 1821–.... French statesman and writer.

Bronte, Charlotte. *Currer Bell.* 1816–1855. English novelist. *Jane Eyre; Shirley; Villette.*

Brooks, James. 1810–1873. American journalist.

Brougham, Henry, Lord. 1779–1868. British author, statesman and orator.

Brown, Charles Brockden. 1771–1810. Am. novelist.

Brown, Hablot, Knight. *Phiz.* 1815–1882. English comic designer.

Brown, John, Captain. 1800–1859. Born in Connecticut, and a tanner by trade. Removed to Kansas and became prominent as an abolitionist, and gained the title of "Ossawatomie" by a victory, in 1856, over a company of Missourians vastly exceeding his own force in number. In pursuance of a plan for the invasion of Virginia and the emancipation of slaves, he surprised Harper's Ferry in 1859, and took the arsenal and armory and forty prisoners. Attacked the next day by the United States marines and the Virginia militia, two of his sons and most of his company of twenty men were killed, and he himself was wounded and taken prisoner. He was tried and hanged at Charlestown, Virginia, the same year.

Brown, Thomas. 1778–1820. Scottish metaphysician.

Browne, Charles F. *Artemus Ward.* 1835–1867. American humorist.

Browne, Sir Thomas. 1605–1682. English physician, philosopher and author. *Religio Medici; Enquiries into Vulgar and Common Errors.*

Browning, Elizabeth Barrett. 1809–1861. Wife of Robert Browning. English poetess. *Aurora Leigh; Casa Guidi Windows.*

Browning, Robert. 1812–1889. English poet. *The Ring and the Book; Strafford; Men and Women; Fifine at the Fair; A Soul's Errand.*

Brownlow, William Gannaway. *Parson Brownlow.* 1805–1877. American politician.

Brownson, Orestes Augustus. 1803–1876. Am. theologian.

Bruce, James. 1730–1794. Scottish traveller; discovered the source of the Blue Nile.

Bruce, Robert. 1274–1329. King of Scotland. Defeated Edward II. at Bannockburn, in 1314. The greatest of the rulers of Scotland.

Brummel, George Bryan. *Beau Brummel.* 1778–1840. English man of fashion.

Brunel, Isambard Kingdom. 1806–1859. Eng. engineer.

Brunel, Sir Mark Isambard. 1769–1849. English engineer, born in France. Built the Thames tunnel.

Brunelleschi, Filippo. 1377–1444. Italian architect and sculptor.

Bruno, Saint. 1040?–1191. German founder of the Carthusians.

Brutus, Lucius Junius. Fl. 500 B.C. Roman patriot; overthrew Tarquin.

Brutus, Marcus Junius. 80–36 B.C. One of Cæsar's assassins; committed suicide after his defeat at Philippi.

Bryant, William Cullen. 1794–1878. American poet and journalist; born in Massachusetts. At 13 composed *The Spanish Revolution* and *The Embargo*. Entered Williams College, read law, and was admitted to the bar in 1816. Published *Thanatopsis* in 1816. Became editor of the *New York Evening Post* in 1826. He was a firm opponent of slavery.

Buchanan, George. 1506–1582. Scottish historian and poet.

Buchanan, James. 1791–1868. Fifteenth president of the United States. Born in Pennsylvania. Admitted to the bar, 1812; member of Congress, 1821–31; minister to Russia, 1832–4; U. S. senator, 1834–5; secretary of state, 1845–9; minister to England, 1853–6; signed Ostend manifesto in 1854; president, 1857–61. In his last message, President Buchanan censured the Northern people for the imminent disruption of the Union, holding that neither the executive nor Congress had power to coerce a state.

Buckland, William. 1784–1856. English geologist.

Buckle, Henry Thomas. 1822–1862. English writer. *History of Civilization.*

Buddha (or *Booddha*), Gautama. 624–523 B.C. Hindoo reformer; founder of Buddhism.

Buell, Don Carlos. 1818?–.... American general.

Buffon, Georges Louis Leclerc de, Comte. 1707–1788. French naturalist and philosopher. *Natural History; Epochs of Nature.*

Bull, Ole Bornemann. 1810–1882. Norwegian violinist.

Bulow, Bernhard Ernst von. 1815–.... German statesman.

Bulow, Friedrich Wilhelm von, Count. 1775–1816. Prussian general.

Bulow, Hans Guido von. 1830–.... German pianist.

Bulwer-Lytton, Edward George Earle Lytton, Baron Lytton. 1805–1873. English novelist.

Bulwer-Lytton, Edward Robert, Earl of Lytton. *Owen Meredith.* 1831–1891. Son of the preceding. English poet.

Bulwer, Sir Henry Lytton Earle. 1804–1872. English author and diplomatist.

Bunsen, Christian Karl Josias von, Baron. 1791–1860. German philologist and diplomatist.

Bunyan, John. 1628–1688. English author. The son of a tinker, he followed that vocation and led for many years a dissipated, wandering life; served in the Parliamentary army; joined the Anabaptists in 1654, and in 1655 became a Baptist minister; sentenced to transportation for life on a charge of promoting seditious assemblies, but sentence not enforced; was, however, imprisoned for more than twelve years, and during this time wrote his *Pilgrim's Progress.*

Bun-Lan. 1879–.... King of Siam. Succeeded his father, Tu-Duc, 1889.

Burckhardt, Johann Ludwig. 1784–1817. Swiss traveller.

Burdett-Coutts, Angela Georgina, Baroness. 1814–.... English philanthropist.

Burger, Gottfried August. 1748–1794. German poet.

Burgoyne, John. 1730–1792. English general and dramatist. Surrendered at Saratoga.

Burke, Edmund. 1730–1797. English (Irish) orator, statesman and writer. Prominent as the ablest member of the Commons to oppose the ministry's American policy. Impeached Warren Hastings in 1788. *Reflections on the Revolution in France.*

Burke, Thomas N. 1830–1883. Irish Dominican orator.

Burleigh, William Cecil, Lord. 1520–1598. Eng. statesman.

Burlingame, Anson. 1822–1870. American diplomatist; negotiator of treaty between the United States and China.

Burnet, Gilbert. 1643–1715. British prelate and historian. *History of My Own Times.*

Burns, Robert. 1759–1796. Scotch lyric poet. Born at Ayr; the son of a poor farmer. Burns worked hard on his father's farm and had little opportunity for education. Began rhyming at the age of 16, and studied mensuration and surveying. His poems brought him into society, where he acquired dissipated habits. Formed a *liaison* in 1785 with Jean Armour, whom he married in 1788. Intended to emigrate, but the popularity of his poems, published in full in 1787, induced him to remain in Scotland. He afterward became an officer of the excise. The principal characteristics of Burns' poems are beauty and independence of thought and intensity of feeling. *The Cotter's Saturday Night; Tam O'Shanter; To the Unco' Guid; Halloween; Holy Willie's Prayer.*

Burnside, Ambrose Everett. 1824–1881. American general.

Burr, Aaron. 1756–1836. American statesman and lawyer. In 1800 Burr and Jefferson were the Democratic candidates for president and vice-president. Receiving the same number of votes, the House gave the higher office to Jefferson. Burr's course in endeavoring to supplant Jefferson lost him the regard of his party. Unsuccessful as candidate for governor of New York in 1804, Burr attributed his defeat to Alexander Hamilton, whom he killed in a duel. After the expiration of his term as vice-president, Burr was tried for treason, charged with the subversion of federal authority, and with raising an expedition for the conquest of Mexico, but acquitted.

Burritt, Elihu. *The Learned Blacksmith.* 1810–1879. American scholar and journalist. The son of a shoemaker, and apprenticed to a blacksmith, he devoted all his spare time to study, and eventually mastered eighteen foreign languages. He became a successful lecturer and advocated many reforms.

Burton, Sir Rich. Francis. 1821–1890. Irish traveller in Africa.

Burton, Robert. 1576–1640. English philosopher. *Anatomy of Melancholy.*

Bushnell, Horace. 1802–1876. American divine.

Butler, Benjamin Franklin. 1818–.... American politician, lawyer and general. Born in New Hampshire. Butler applied the term "contraband of war" to the slaves who sought protection at Fortress Monroe while he was in command there. Military governor of New Orleans in 1862, ruling with vigor and efficiency and preserving the city from the yellow fever. Went to Congress as a Republican in 1866, and was re-elected for several terms. Elected governor of Massachusetts in 1882 by the Democrats, but defeated for the same office a year later.

Butler, Joseph. 1692–1752. English theologian.

Butler, Samuel. 1612?–1680. English poet. *Hudibras.*

Byng, John. 1704–1757. Eng. admiral, shot for cowardice.

Byron, George Gordon Noel, Lord. 1788–1824. English poet. Born in London and educated in Scotland. Travelled 1809–11, and on returning produced the first cantos of *Childe Harold. Giaour* and *Bride of Abydos,* 1813; *Corsair,* 1814. In 1815 he married Anne Isabel Millbank, but separated from her and left England in 1816. In Italy he formed a *liaison* with the beautiful Countess Guiccioli. Espousing the cause of the Greeks in their struggle for liberty, he left for Greece in 1823, and died the following year at Missolonghi from the effects of exposure while preparing for the siege of Lepanto. Byron's poetry is characterized by intense emotion, and by rare taste and marvellous felicity in composition. *Childe Harold's Pilgrimage; Don Juan.*

CABALLERO, Fernan. 1787–1877. Pseudonym of the Spanish novelist Cecilia Bohl de Faber.

Cabanel, Alexandre. 1823–.... French historical painter.

Cabanis, Pierre Jean George. 1757–1808. French physician and philosopher.

Cabot, George. 1751–1823. President of the Hartford Convention.

Cabot, John. ....–1498? Venetian navigator in the service of England. Discovered North American continent in 1497.

Cabot, Sebastian. 1477?–1557. Son of preceding. English navigator.

Cade, John. *Jack Cade.* ....–1450. Irish rebel.

Cadoudal, George. 1769–1804. French Bourbon general. Executed for plotting the dethronement of Napoleon I.

Cadwalader, George. ....–1879. American general.

Cadwalader, John. 1743–1786. American general.

Cædmon. ....–680? Anglo-Saxon poet. *The Creation.*

Cæsar, Caius Julius. 100–44 B.C. Roman general and statesman. Elected Consul 60 B.C.; formed a secret alliance with Pompey and Crassus known as the first triumvirate. It is said that during his Gallic wars a million of men were slain, eight hundred cities and towns captured and three hundred tribes subdued. Pompey having become Cæsar's enemy through jealousy, the latter crossed the Rubicon, 49 B.C., and in a short time became master of Italy. Having conquered all his enemies, and subdued Spain and Africa, Cæsar was made perpetual dictator, and received from the Senate the title of Imperator. Although beloved by the masses, the patricians feared and hated him, and the result of a conspiracy of Cassius, Brutus and others was his assassination.

Cagliari, Paolo. *Paul Veronese.* 1530?–1588. Italian painter.

Cagliostro, Alexandro (Joseph Balsamo). 1743–1795. Italian impostor and adventurer, physician and alchemist.

Caille, Nicolas Louis de la. 1713–1762. French astronomer.

Caillet, Guillaume. ....–1359. French insurgent leader.

Cajetan, Thomas de Vio. 1469–1534. Italian prelate.

Calderon de la Barco, Don Pedro. 1600–1683. Spanish poet and dramatist. Produced his first drama at the age of 13. Served as a soldier, but took orders in 1652, after which he wrote only sacred dramas. He wrote some five hundred plays.

Calhoun, John Caldwell. 1783–1850. American statesman. Born in South Carolina; elected to Congress, 1810; secretary of war, 1817; vice-president, 1825–1832, resigning to enter the Senate; secretary of state, 1844; returned to the Senate, 1845. Calhoun was an avowed champion of slavery and state's rights.

Caligula, Caius Cæsar. 12–41. Emperor of Rome noted for cruelty and sensuality. Built a temple to himself. Assassinated.

Calonne, Charles Alexandre de. 1734–1802. Fr. statesman.

Calvert, Cecilius, second Lord Baltimore. ....–1676. First proprietor of Maryland, residing in England.

Calvert, George, first Lord Baltimore. 1582?–1632. Father of the preceding. Founder of Maryland.

Calvert, Leonard. 1606?–1647. Brother of Cecilius. First governor of Maryland.

Calvin, John. 1509–1564. French theologian. Established the Presbyterian form of church government. The fundamental principle of his theology is that of predestination to eternal happiness or misery by the absolute decree of God.

Cambaceres, Jean Jacques Regis de. 1757–1824. French statesman.

Cambyses. ....–522 B.C. King of Persia; conqueror of Egypt.

Cameron, Richard. ....–1680. Scottish Covenanter.

Cameron, Simon. 1799–1889. American politician; senator from Pennsylvania, secretary of war and minister to Russia.

Camillus, Marcus Furius. ....–364 B.C. Roman general and dictator.

Camoens, Luis. 1517–1579. Portuguese poet. Served in Morocco as a volunteer, and, failing to procure advancement at court on his return, went to India. There he was banished, on account of his satire, *Follies in India*, from Goa to Macao, where he wrote the *Lusiad*, the greatest of his works. Recalled to Goa, he suffered shipwreck, and saved the *Lusiad* by holding it above the waves as he swam ashore. He died in great poverty.

Campanini, Italo. Italian tenor singer.

Campbell, Alexander. 1788–1866. Irish founder of the denomination of "Christians," or "Disciples of Christ."

Campbell, Colin, Lord Clyde. 1792–1863. British General.

Campbell, John, Lord. 1779–1861. Lord chancellor of England. *The Lives of the Lord Chancellors.*

Campbell, Thomas. 1777–1844. Scottish poet. Son of a Glasgow merchant. Published *Pleasures of Hope* in 1799.

Camphon, Jules. Governor-general of Algeria. Appointed May 11, 1891.

Canby, Edward Richard Sprigg. 1819–1873. American general.

Canisius, Petrus. (De Hondt.) 1521–1597. Dutch Jesuit theologian.

Canning, George. 1770–1827. English statesman and orator.

Canova, Antonio. 1757–1822. Italian sculptor. *Venus Victorious; Venus and Adonis; Theseus and the Minotaur; Dædalus and Icarus; The Graces.* He executed statues of Washington and Napoleon.

Canrobert, François Certain. 1809–.... French marshal and senator.

Cantacuzenus, John. ....–1411? Greek emperor and historian.

Canute II. 990–1035. King of Denmark; conqueror of England.

Capet, Hugh. 940?–996. Founder of the Capetian dynasty.

Caracalla. 188–217. Emperor of Rome, noted for cruelty.

Caracci, Agostino. 1558–1602. Italian painter and engraver.

Caracci, Annibal. 1560–1609. Italian painter.

Caracci, Ludovico. 1555–1619. Italian painter.

Caravaggio, Michel Angelo da. 1569–1609. Italian painter.

Cardigan, James Thomas Brudenell, Earl of. 1797–1868. English general.

Carducci, Bartolommeo. 1560–1610. Florentine painter.

Carey, Henry Charles. 1793–1879. Am. political economist.

Carlisle, John G. 1829–.... American statesman.

Carlos, Don, Duke of Madrid. (Carlos Maria de los Dolores Juan Isidoro Josef Francesco Quirino Antonio Miguel Gabriel Rafael.) 1848–.... Claimant to the Spanish throne. Nephew of Charles VI.

Carlyle, Thomas. 1795–1881. Scottish essayist, biographer and historian. The son of a small farmer; educated at the University of Edinburgh. Taught mathematics for some time, but resolved to devote himself to literary pursuits and became thoroughly familiar with the literature of Germany. Married Jane Welch in 1827, and settled on a farm. Besides his best known works and several translations, he produced biographies of Schiller, Frederick the Great and John Sterling. *Sartor Resartus* first appeared in *Fraser's Magazine* in 1833; *French Revolution*, 1837; *Chartism*, 1839; *Heroes and Hero Worship*, 1840; *Latter-Day Pamphlets* and *Cromwell's Letters and Speeches*, 1845.

Carnarvon, Henry H. M. Herbert, third Earl of. 1831–.... English statesman.

Carnot, Marie François Sadi. 1837–.... President of the French Republic.

Carroll, Charles (of Carrollton). 1737–1832. Am. patriot.

Cartier, Jacques. 1494–1555? French navigator.

Cartwright, Edmund. 1743–1823. English inventor.

Cary, Alice. 1822–1870. American poetess.

Cary, Henry Francis. 1722–1884. Eng. translator of Dante.

Casas, Bartolomé de las. 1474–1566. Spanish missionary and historian. *History of the Indians.*

Casaubon, Isaac. 1559–1614. Swiss scholar and critic.

Casimir I. *The Pacific.* ....–1058. King of Poland. **II.,** 1137–1194. **III.,** *The Great*, ...–1370. **IV.,** 1425–1492. **V.,** 1609–1672.

Cass, Lewis. 1782–1866. Am. statesman and diplomatist.

Castelar y Rissol, Emilio. 1832–.... Spanish republican orator and statesman.

Castlereagh, Robert Stewart, Viscount. 1769–1822. Second marquis of Londonderry. British statesman, prominent in suppressing the Irish rebellion of 1798, and to him is attributed the union of Ireland with Great Britain. Opposed Bonaparte. Committed suicide.

Castro, Joao de. 1500–1548. Port. general and navigator.

Catherine, Saint. 1347–1380. Italian nun at Siena. Mediator between the rival popes in the great schism.

Catherine I. 1682–1727. Empress of Russia; succeeded to the throne on the death of her husband, Peter the Great. **II.,** 1729–1796; notoriously immoral.

Catherine of Aragon. 1486–1536. Queen of Henry VIII. of England; divorced.

Catherine de, Medici. 1510–1589. Queen of Henry II. of France; opponent of the Huguenots.

Catiline, Lucius Sergius. 108?–62 B.C. Roman conspirator.

Cato, Dionysius. Fl. 3d century. Latin poet.

Cato, Marcus Portius. *The Elder.* 234–149 B.C. Roman statesman and author.

Cato, Marcus Portius. *The Younger.* 95–46 B.C. Opponent of Cæsar; famed for purity and nobility. Committed suicide.

Catullus, Caius Vallerius. 77?–45? B.C. Latin poet.

Caulaincourt, Armand A. L. de. 1773–1827. Fr. diplomat.

Cavaignac, Louis Eugène. 1802–1857. French general and statesman. Put down the insurrection of 1848.

Cavour, Camillo Benso di. 1818–1861. First prime minister of the kingdom of Italy.

Caxton, William. 1412?–1492. English scholar and merchant. Introduced printing into England.

Cecil, William, Lord Burleigh. 1520–1598. Lord treasurer of England.

Cecilia, Saint. Fl. 2d century. Roman martyr; patroness of music.

Cenci, Beatrice. *The beautiful Parricide.* 1583?–1599. Roman lady, famous for her beauty and tragic fate.

Cervantes Saavedra, Miguel de. 1547–1616. Spanish novelist. *Don Quixote.*

Cesnola, Louis Palma di. 1832–.... Born in Italy; colonel in U. S. army during the civil war; appointed 1865 consul to Cyprus, and became famous for his excavations in that island.

Chalmers, Thomas. 1780–1847. Scottish divine; founder of the "Free Church." *Astronomy in its Connection with Religion.*

Chambers, William. 1800–1883. Scot. editor and publisher.

Chambord, Henri Charles Ferdinand Marie Dieudonné d'Artois, Comte. 1820–1883. Head of elder branch of the Bourbons.

Chamisso, Adelbert von. 1781–1838. German traveller.

Champollion, Jean François. 1791–1832. French Egyptologist. *Hieroglyphic Dictionary.*

Changarnier, Nicolas A. T. 1793–1877. French general.

Channing, William Ellery. 1780–1842. American divine and author; opponent of slavery.

Chantrey, Sir Francis. 1782–1841. English sculptor.

Chapin, Edwin Hubbell. 1814–1881. American divine.

Charlemagne. *Charles the Great,* or *Charles I.* 742–814. Emperor of Germany and King of France. Crowned emperor of the West, with the title of Cæsar Augustus, by Pope Leo III., 800. The most powerful and enlightened monarch of his time. His empire extended from the Elbe to the Ebro, and from Calabria to Hungary. Founder of the Carlovingian dynasty.

Charles II. *The Bald.* (Charles II. of France.) 823–877. Emperor of Germany. Invaded Italy and was crowned Emperor. **III.,** *The Fat,* 832?–888. **IV.,** 1316–1378. Emperor of Germany and King of Bohemia. **V.,** 1500–1558. Emperor of Germany. King of Spain as Charles I. Ascended the Spanish throne in 1516 and became Emperor of Germany in 1519. In 1521 summoned the Diet of Worms to check the progress of Luther's doctrines. In 1527, warring with Francis I. of France, and Pope Clement VII., Rome was sacked and the pope made prisoner. Convened the Diet of Augsburg to suppress the Reformation, but, the Protestants having united, liberal terms were granted them. In 1535, defeated Barbarossa and captured Tunis, liberating thousands of Christian slaves. Defeated in 1552 by the Protestant forces under Maurice of Saxony, he signed the treaty of Passau, establishing the Protestant church on a firm basis. Three years later he retired to the monastery of St. Yuste. **VI.,** 1685–1740. **VII.** (Karl Albrecht), 1697–1745.

Charles II. *The Bald.* (Charles II. of Germany.) 823–877. King of France. **IV.,** *The Fair.* 1294–328. **V.,** *The Wise,* 1337–1380. **VI.,** *The Mad* or *The Beloved,* 1368–1422. Became insane in 1392. **VII.,** *The Victorious,* 1403–1461; expelled the English. **IX.,** 1550–1574. **X.,** 1757–1836.

Charles I. *Charles Stuart.* 1600–1649. King of England. Executed after ineffectually attempting to subdue his rebellious subjects. **II.,** 1630–1685; witty, but careless and voluptuous, the Habeas Corpus act was passed during his reign.

Charles I. (Charles V. of Germany.) 1500–1558. King of Spain. **II.,** 1661–1700. **III.,** 1716–1788. **IV.,** 1748–1819.

Charles IX. 1550–1611. King of Sweden. **X.** (Gustavus), 1622–1660. **XII.,** 1682–1718; ascended the throne in 1697. A league being formed against him by Russia, Denmark and Poland, in 1700, he besieged Copenhagen, forced Denmark to make peace, and beat the Russians. He then invaded Poland, compelling King Augustus to resign. Invading Russia, he was badly defeated at Pultowa. He fled to Turkey, but soon returned. Marching into Norway, he was killed at the siege of Frederickshall. **XIII.,** 1748–1818. **XIV.** (Bernadotte), 1714–1844. **XV.,** 1826–1872. King of Sweden and Norway.

Charles Edward Stuart. *The Young Pretender.* 1720–1788. English prince.

Charles the Bold. 1433–1477. Duke of Burgundy. While still Count of Charolais and before succeeding to his dukedom, he led a successful revolt of the nobles against Louis XI. of France. Aspiring to enlarge his dominions, he invaded Lorraine, but was defeated by Duke René's Swiss allies and killed in battle.

Charles Martel. 694?–741. King of the Franks.

Charron, Pierre. 1531–1603. French moralist.

Chartier, Alain. 1385–1455. French poet.

Chase, Salmon Portland. 1808–1873. American statesman and jurist. Secretary of the Treasury; chief justice.

Chateaubriand, François Auguste de, Viscount. 1768–1848. French author. *Genius of Christianity.*

Chatham, William Pitt, Earl of. *The Great Commoner.* 1708–1778. English statesman and orator. Opposed taxation of the American colonies.

Chatterton, Thomas. 1752–1770. English literary impostor.

Chaucer, Geoffrey. 1340?–1400. English poet, styled the "Father of English poetry." *Canterbury Tales.*

Cheever, George Barrelle. 1807–1890. American divine.

Cheke, Sir John. 1514–1557. English scholar.

Chenier, Andre Marie de. 1762–1794. French poet; executed. *The Young Captive,* written just before his death, is called by Lamartine "the most melodious sigh that ever issued from a dungeon."

Cherbuliez, Victor. 1832–.... French novelist.

Cherubini, Maria Luigi C. Z. S. 1760–1842. It. composer.

Chesterfield, Philip Dormer Stanhope, Earl of. 1694–1773. English orator and wit, distinguished especially as a man of fashion.

Chevalier, Michael. 1806–1879. Fr. political economist.

Chiabrera, Gabriello. 1552–1637. Italian lyric poet.

Child, Lydia Maria. 1802–1880. American philanthropist.

Chillingworth, William. 1602–1644. English theologian. *The Religion of Protestants a Safe Way to Salvation.*

Chitty, Joseph. 1776–1841. English jurist and writer.

Choate, Rufus. 1799–1859. American lawyer and statesman, noted for his eloquence. Senator from Massachusetts.

Choiseul, Etienne François de. 1719–1785. Fr. statesman.

Choris, Louis. 1795–1828. Russian painter and traveller.

Christian I. 1425–1481. King of Denmark. **II.,** 1481–1556. Called "The Hero of the North." **III.,** 1503-1559. **IV.,** 1577-1648. **V.,** 1646-1699. **VI.,** 1699-1746. **VII.,** 1749-1808. **VIII.,** 1786-1848. **IX.,** 1818-....

Christina. 1629–1689. Queen of Sweden. Daughter of Gustavus Adolphus. Learned and eccentric. Abdicated 1654.

Chrysippus. 280–207 B.C. Greek Stoic philosopher.

Chrysostom, John, Saint. 350?–407. Greek father of the church.

Church, Frederick Edwin. 1826–.... American painter.

Churchill, Charles. 1731–1764. English poet and satirist.

Cialdini, Enrico. 1811–.... Italian general.

Cibber, Colley. 1671–1757. English actor and dramatist.

Cicero, Marcus Tullius. 106–43 B.C. Roman author, statesman and orator. While consul, suppressed the conspiracy of Catiline. Exiled 58 B.C., but recalled and enthusiastically received. Was an adherent of Pompey, but enjoyed the favor of Julius Cæsar. Killed by the soldiers of Antony. Cicero is regarded as an orator second only to Demosthenes.

Cid Campeador. (Ruy Diaz de Bivar.) 1040?–1099. Castilian hero.

Cimabue, Giovanni. 1140–1300? Italian painter.

Cimon. 500–499 B.C. Athenian general and statesman.

Cincinnatus, Lucius Quintus. 520–438 B.C. Roman patriot and Dictator. Elected consul while cultivating a farm, having lost his property. Conquered the Æqui. Twice chosen dictator, and at the expiration of each term of office he returned to the plow.

Cinna, Lucius Cornelius. ....–84 B.C. Roman demagogue.

Cinq-Mars, Henri C. de Ruze, Marquis de. 1620–1642. French conspirator.

Civilis, Claudius. Fl. 70. Chief of the Batavi.

Clarendon, Edward Hyde, Earl of. 1608–1674. English historian and statesman.

Clarke, Adam. 1762–1832. Irish Methodist Bible commentator.

Clarke, John S. 1835–.... American comedian.

Clarke, Mary Cowden. 1809–.... English writer. *Concordance of Shakspere.*

Claude Lorraine. 1600–1682. French painter.

Claudian (Claudius Claudianus). 365?–408? Latin poet.

Claudius (Tiberius Claudius Drusus Nero). B.C. 10–54 A.D. Roman emperor; invaded Britain.

Claudius, Marcus Aurelius. 214–270. Roman emperor.

Clay, Henry. 1777–1852. American statesman and orator. Born in Virginia; removed to Kentucky 1797; practiced law; elected to Kentucky Legislature in 1804, and two years later chosen to fill a short term in the U. S. Senate; re-elected to the Senate 1809, and to the House of Representatives 1811, of which body he was made speaker; re-elected speaker 1813; signed treaty of Ghent, 1815; re-elected speaker four times; advocated Missouri Compromise. Not one of his decisions as speaker was reversed. In 1824, he was one of four candidates for the presidency, receiving thirty-seven electoral votes. When the election devolved on the House of Representatives, his influence decided the contest in favor of Jackson. A bloodless duel between Clay and Randolph, in 1826, was the result of charges against Clay growing out of this election. Re-elected to the Senate in 1831 for six years; and in 1832 was defeated for the presidency as the candidate of the anti-Jackson party. Again elected to the Senate in 1836, but resigned in 1842. Whig candidate for the presidency in 1844. Re-elected Senator 1848. Clay is generally given credit for the compromise of 1850, believed to have postponed for ten years the civil war.

Clemens, Samuel Langhorne. *Mark Twain*. 1835–.... American humorist. Learned the printer's trade, and became a pilot on the Mississippi. *The Innocents Abroad; The Jumping Frog; Roughing It; The Gilded Age; The Tramp Abroad.*

Clement I. 30?–100. Pope. **IV.**, ...–628. **V.**, 1264?–1314. **VII.** (Giulio de Medici), 1475?–1534. **VIII.**, 1605. **XI.**, 1649–1721. **XIV.**, 1705–1774.

Clement of Alexandria. 150?–220? Father of the church.

Cleon. ....–422 B.C. Athenian demagogue and general.

Cleopatra. 69–30 B.C. Queen of Egypt, remarkable for beauty and accomplishments.

Cleveland, Grover. 1837–.... American statesman. Born at Caldwell, N. J., the son of a Presbyterian minister, who removed to Fayetteville, N. Y., in 1840. First worked in a country store, secured an education and became a teacher in the N. Y. Blind Asylum. Studied law in Buffalo; admitted to the bar in 1863, and became assistant district attorney; afterwards sheriff. Mayor of Buffalo, 1881, and then elected Governor of New York by 192,000 majority. Elected President in 1884.

Clinton, De Witt. 1769–1828. American statesman; promoter of the Erie Canal. Governor of New York, United States Senator, and Federal candidate for the Presidency.

Clinton, George. 1739–1812. Vice-president of the U. S.

Clinton, Sir Henry. 1738–1795. English general in America.

Clive, Robert, Lord. 1725–1774. English general and founder of the British empire in India. Committed suicide.

Clodius, Publius. 52 B.C. Roman tribune and demagogue.

Clootz, Jean Baptiste, Baron. *Anacharsis Clootz.* 1753–1794. Prussian traveller and French revolutionist. Guillotined.

Clough, Arthur Hugh. 1820–1861. English poet.

Clovis (or *Chlodwig*). 465–511. King of the Franks; conqueror of Gaul.

Cobbett, William. 1762–1835. English political writer.

Cobden, Richard. 1804–1865. English statesman and economist. Leading orator of the Anti-Corn-Law League.

Coke (or **Cook**), Sir Edward. 1552–1633. English jurist.

Colbert, Jean Baptiste. 1619–1683. French statesman.

Cole, Thomas. 1801–1848. English landscape painter.

Colenso, John William. 1814–1883. Eng. theologian. Bishop of Natal. *The Pentateuch and Book of Joshua Critically Examined.*

Coleridge, Hartley. 1796–1849. Son of S. T. C. Eng. poet.

Coleridge, Samuel Taylor. 1772–1834. English poet and critic. Educated at Cambridge. Intimate friend of Robert Southey, with whom he intended to emigrate to America for the purpose of founding a democratic community. In company with Wordsworth he studied German literature and wrote the *Lyrical Ballads*. In 1807 he took to wandering habits, and left his family dependent on his brother-in-law, Southey. His health failing about 1825, he became addicted to the opium habit, but succeeded in overcoming it. *The Ancient Mariner.*

Colfax, Schuyler. 1823–1885. Am. politician; vice-president.

Coligny, Gaspard de. 1517–1572. French admiral. Leader of the Huguenots, and killed in the massacre of St. Bartholomew.

Collier, Jeremy. 1650–1726. English theologian.

Collingwood, Cuthbert, Lord. 1750–1810. English lord high admiral; second in command at the battle of Trafalgar.

Collins, Anthony. 1676–1729. Eng. author and free-thinker.

Collins, William. 1720–1756. Eng. poet. *The Passions.*

Collins, William Wilkie. 1824–1889. English novelist. *After Dark; Armadale; The Woman in White; Man and Wife.*

Colman, George. *The Elder.* 1733–1794. Eng. dramatist.

Colman, George. *The Younger.* 1762–1836. English dramatist. *John Bull.*

Colonna, Vittoria. 1490–1547. Italian poet.

Colt, Samuel. 1814–1862. Am. inventor of the revolving pistol.

Columba, Saint. 521–597. The apostle of Caledonia.

Columbus, Christopher. 1436–1506. Genoese navigator and discoverer of America. Became a sailor at 14. Studied mathematics at the University of Pavia. Removed to Lisbon at the age of thirty, and was employed in several expeditions to the west coast of Africa. Columbus meditated reaching India by a western route. He unsuccessfully solicited the aid of John II. of Portugal, but finally Ferdinand and Isabella of Spain furnished him two small vessels, and another was added by the efforts of his friends. With these ships and one hundred and twenty men he set sail from Palos, August 3, 1492, and after a long voyage, during which he was threatened with death by his mutinous crew, he discovered the island of San Salvador, October 12 of same year. Supposing that he had reached India, he called the natives Indians. After visiting Cuba and Hayti, he returned to Spain, where he was received triumphantly. In 1493 he again sailed across the Atlantic, this time with seventeen ships, and discovered Jamaica and Porto Rico. In 1498 he made his third voyage, with six vessels, discovering the mainland at the mouth of the Orinoco. In 1499, complaints having been made to the court of the conduct of Columbus at Hispaniola, he was carried to Spain in chains by Francisco de Bobadilla, whose action was, however, repudiated by the king and queen. Columbus' last voyage to America was made in 1502, to Honduras. He died neglected.

Combe, George. 1788–1858. Eng. educator and phrenologist.

Comines, Philippe de. 1445–1509. Fr. statesman and historian.

Commodus, Antoninus. 161–192. Emperor of Rome.

Comonfort, Ignacio. 1810?–1863. President of Mexico.

Comte, Auguste. 1798–1857. French philosopher. *Positivism.*

Conde, Louis II., Prince de. *The Great Condé.* 1621–1686. French general. Victorious over the Spaniards at Rocroi, 1643, and over the Germans at Nordlingen, 1645. Again defeated the Spanish at Lens in 1648, almost annihilating their infantry, previously regarded invincible. Seeking revenge for having been imprisoned by the orders of Mazarin or the queen, he warred against the government, and next entered the service of Spain. Returned to France in 1659, and defeated William of Orange in 1674.

Condillac, Etienne Bonnot de. 1715–1780. French metaphysician.

Condorcet, Marie Jean A. N. C. de. 1743–1794. French mathematician and philosopher. Imprisoned in 1794, he committed suicide by poison.

Confucius, or Kong-foo-tse. 551–478 B.C. Chinese philosopher. The son of a soldier, he was raised to the rank of mandarin at 19; superintendent of public markets and public fields. Commenced public teaching at 22. Became, in 499 B.C., minister of crime, and soon after retired from public life, devoting his time to study, travel, and the dissemination of his doctrines. The philosophy of Confucius relates to the present life only, the useful and the practical forming the chief objects. He placed great importance upon outward forms of politeness, being the first to enunciate, in substance, the Golden Rule. His object was to promote human happiness. His influence upon posterity has been truly enormous, his teachings affecting two-thirds of humanity for twenty-three centuries.

Congreve, Sir William. 1772–1828. English engineer. (Congreve rocket).

Congreve, William. 1670–1729. English dramatist and wit.

Conkling, Roscoe. 1829–1888. American statesman, lawyer and orator. U. S. senator from New York.

Conrad I. ....–918. Emperor of Germany. **II.,** ....–1039. **III.,** 1093–1153. **IV.,** 1228–1254. **V.,** 1252–1268.

Conscience, Hendrik. 1812–1883. Flemish novelist.

Constans I. 320?–350. Emperor of Rome. **II.,** 630–668.

Constantine I. *The Great.* 272–377. Emperor of Rome. Embraced Christianity, and transferred his court from Rome to Byzantium, thenceforth called Constantinople. **II.,** 312–340. **III.** (emperor of the East), 612–641. **IV.,** ....–685. **V.,** 719–775. **VI.,** 771–797. **VII.,** 905–959; poisoned by his son, Romanus II. **VIII.,** ....–946. **IX.,** 961–1028. **X.,** ....–1054. **XI.,** ....–1067. **XII.,** ....–1071. **XIII.** (Palaeologus), 1394–1543; killed while defending Constantinople against the victorious Mahomet II. Last emperor of the East.

Constantius I. 250–306. Emperor of Rome. **II.** (emperor of the West), 317–361. **III.,** ....–421.

Conti, François Louis de, Prince. 1664–1709. Fr. general.

Cook, Eliza. 1817–.... English poetess.

Cook, James, Captain. 1728–1779. English discoverer, and circumnavigator of the globe. Killed by natives in the Sandwich Islands.

Cooke, George Frederick. 1755–1812. English actor.

Cooper, Sir Astley Paston. 1768–1841. English physician.

Cooper, James Fenimore. 1779–1851. American novelist. Having studied at Yale College, he entered the navy in 1806 as midshipman, but left the service in 1811. His first novel, *Precaution*, appeared in 1809, but was not a success. His next, *The Spy*, was enthusiastically received. His sea-stories are considered the best of his numerous productions.

Cope, Edward Drinker. 1840–.... American naturalist.

Copernicus (*Copernik* or *Kopernik*), Nicholas. 1473–1543. German astronomer. Disproved the Ptolemaic theory. In his great work, *The Revolution of the Celestial Orbs*, the first copy of which was handed to him on the day of his death, he demonstrated that the sun is the centre of the universe.

Coppee, François Edouard Joachim. 1842– . French poet.

Corday, Charlotte. (Mariane Charlotte Corday d'Armans). 1768–1793. French heroine; assassinated Marat.

Coriolanus, Cneius Marcius. Fl. 490 B.C. Roman hero.

Corneille, Pierre. 1606–1684. Founder of the Fr. drama.

Cornelius, Peter von. 1787–1867. German painter.

Cornell, Ezra. 1807–1874. American philanthropist.

Cornwallis, Charles, Earl. 1738–1805. British general.

Corot, Jean Baptiste Camille. 1796–1875. French painter.

Correggio, Antonio Allegri da. 1494–1534. Italian painter. Extremely skilful in foreshortening and in the use of *chiaroscuro*. *The Assumption of the Virgin; Ecce Homo; Penitent Magdalen; St. Jerome; La Vierge au Panier.*

Cortez, Hernando. 1485–1547. Spanish conqueror of Mexico.

Corvinus, Matthias. 1443–1490. King of Hungary.

Corwin, Thomas. 1794–1865. American statesman.

Cotton, John. 1585–1652. Puritan minister in Boston.

Cottin, Sophie Ristaud. 1773–1807. French novelist.

Cousin, Victor. 1792–1867. French philosopher.

Cowley, Abraham. 1618–1667. Eng. poet. *Pindaric Odes.*

Cowper, William. 1731–1800. English poet. Studied at Westminster school, and became a fine classical scholar. Admitted to the bar, but never practiced, his morbid sensitiveness, nervousness and diffidence making him unable to occupy a conspicuous position. Became temporarily deranged, and made several attempts at suicide. In 1764 he commenced his translation of Homer. *The Task* was published in 1785. Cowper's letters are considered among the best in the language. His poetry is by turns playful and pathetic, tender and sarcastic—sometimes sublime.

Cowper, William. 1666–1709. English anatomist.

Cox, Samuel Sullivan. 1824–1889. American statesman.

Coxe, Arthur Cleveland. 1818–.... Am. bishop and poet.

Cozzens, Frederick Swartwout. 1818–1869. Am. author.

Crabb, George. 1778–1854. Eng. philologist. *Synonyms.*

Crabbe, George. 1754–1832. English poet. Studied surgery, but abandoned that profession. Was befriended by Edmund Burke, and published *The Library* in 1781. Ordained a minister of the Church of England in 1782. *The Village*, his best work, was produced in 1783.

Craik, Dinah Maria (Mulock). 1826–1887. English authoress. *Olive; John Halifax, Gentleman; A Life for a Life; A Woman's Thoughts about Women.*

Cranch, Christopher Pearse. 1813–.... Am. artist and poet.

Cranmer, Thomas. 1489–1556. English reformer; archbishop of Canterbury. Burned to death.

Crassus, Marcus Licinius. 108?–53 B.C. Roman triumvir; immensely wealthy. Defeated and slain by the Parthians.

Creasy, Sir Edward Shepherd. 1812–1878. English historian. *Fifteen Decisive Battles.*

Crichton, James. *The Admirable Crichton.* 1560–1583. Scottish prodigy. Stabbed by his pupil, a son of the Duke of Mantua.

Crittenden, John Jordon. 1786–1863. American statesman.

Crockett, David. 1786–1836. American backwoodsman.

Crœsus. 590–546 B.C. King of Lydia, famous for wealth.

Croly, George. 1780–1860. Irish poet and pulpit-orator.

Cromwell, Oliver. 1599–1659. English general; lord protector of England. Elected to Parliament 1628. In 1637 resolved to emigrate with his cousin, John Hampden, but they were detained by an order of council. Re-elected to Parliament 1640. Entered the Parliamentary army in 1642 as captain of cavalry. Rapidly promoted, and led left wing at Marston Moor, 1644. Commanded right wing at Naseby, 1645, and became leader of the Independents. Transferred the custody of the king from Parliament to the army, 1647. Won the battle of Preston, 1648. Signed the death warrant of Charles I., 1649. Made commander-in-chief, 1650, and defeated the Scotch at Dunbar and Charles at Worcester. Dissolved Parliament in 1653, and was in 1654 proclaimed by the army protector of the commonwealth.

Cropsey, Jasper Frank. 1823–.... American painter.

Cruden, Alexander. 1700–1770. Scottish bookseller and author. *Concordance.*

Cruikshank, George. 1792–1878. Eng. humorous artist.

Cumberland, William Augustus, Duke of. 1721–1765. Conqueror at Culloden.

Cunningham, Allan. 1785–1842. Scottish author and critic.

Curran, John Philpot. 1750–1817. Irish barrister and orator.

Curtis, George Ticknor. 1812–.... Am. law. and auth.

Curtis, George William. 1824–.... Am. author and editor.

Cushing, Caleb. 1800–1879. American lawyer, statesman and diplomatist.

Cushman, Charlotte Sanders. 1816–1876. Am. actress.

Custer, George A. 1839–1876. American general, killed by the Sioux.

Cuvier, Georges C. L. F., Baron. 1769–1832. French naturalist.

Cyprian, Saint. 200?–258. Latin father; bishop of Carthage; martyr.

Cyril, Saint. 315?–386. Bishop of Jerusalem.

Cyril, Saint. 376?–444. Bishop of Alexandria.

Cyrus. *The Great*, or *The Elder*. ...?–529 B.C. King of Persia; conquered Babylon.

Cyrus. *The Younger*. ....–401 B.C. Hero of Xenophon's *Anabasis*.

DABOLL, Nathan. 1750–1818. American mathematician.

Dacier, André. 1651–1722. French scholar and critic.

Dacier, Anne Lefevre. 1654–1720. Wife of preceding. Translated Homer.

Daendels, Hermann Willem. 1762–1818. Dutch general.

Daguerre, Louis Jacques Mandé. 1789–1851. French artist; inventor of the daguerreotype.

Dahlberg, Eric. 1625–1703. Swedish general and engineer.

Dahlgren, John Adolph. 1809–1870. Am. rear-admiral.

Dallas, Alexander James. 1759–1817. Am. statesman.

Dallas, George Mifflin. 1792–1864. Am. statesman.

Dalton, John. 1766–1844. English chemical philosopher.

Damiani, Peter. 990–1072. Italian ecclesiastic.

Damiens, Robert F. 1714–1757. French fanatic.

Dampier, William. 1652–1712. Eng. explorer and navigator.

Dana, Chas. A. 1819–.... Am. journ. Ed. N. Y. *Sun*.

Dana, Francis. 1743–1811. Am. lawyer and statesman.

Dana, Richard Henry. 1787-1879. American poet and writer. *The Buccaneer*.

Dana, Richard Henry. 1815–1882. Son of preceding. Am. author and lawyer. *Two Years Before the Mast*.

Dancer, Daniel. 1716–1794. English miser.

Dandelot, François de Coligny. 1521–1569. French general.

Dandolo, Enrico. 1105?–1205. Blind doge of Venice; took Constantinople by storm.

Dane, Nathan. 1752–1835. Am. lawyer and statesman.

Daniel. Fl. 6th century B.C. Hebrew prince and prophet.

Daniel, Samuel. 1562–1619. English poet.

Dante Allighieri. 1265–1321. The greatest poet of Italy. *Divina Commedia*.

Danton, Georges Jacques. 1759–1794. A leader of the French revolution, and head of the "Dantonists." Guillotined.

D'Arblay, Mme. (Frances Burney.) 1752–1840. English novelist. *Evelina; Cecilia; Camilla*.

Darboy, Georges. 1813–1871. Archbishop of Paris.

Darius I. (Darius Hystaspis.) ....–435 B.C. King of Persia. II., ...–405 B.C. III. (Codomannus), ...–330 B.C.; defeated by Alexander.

Darius the Mede. Supposed to be Cyaxares II.

Darley, Felix O. C. 1822–1888. American artist.

Darling, Grace. 1815–1842. English heroine.

Darnley, Henry Stuart, Lord. 1545?–1567. Husband of Mary Queen of Scots; assassinated.

Darwin, Charles Robert. 1809–1882. English naturalist and originator of the theory of evolution. In his "Origin of Species by means of Natural Selection," published in 1859, he propounds the theory that all forms of life, animal or vegetable, past or present, have been produced by a series of gradual changes in natural descent. In his "Descent of Man," he infers that "man is descended from a hairy quadruped furnished with a tail and pointed ears, probably arboreal in its habits."

Darwin, Erasmus. 1731–1802. English physician and poet.

D'Aubigne, Jean Henri Merle. 1794–1872. Swiss historian.

D'Aubigne, Theodore. 1550–1630. French soldier, poet and historian.

Daudet, Alphonse. 1840–.... French novelist. *Jack*.

Davenport, Edward L. 1816–1877. American actor.

David. 1090–1015 B.C. King of Israel; prophet and poet.

David, Saint. 490?–544. Patron of Wales.

David, Jacques Louis. 1748–1825. French historical painter.

David, Pierre J. 1789–1856. French sculptor.

Daviess, Joseph Hamilton. *Jo Daviess*. 1787–1854. American statesman.

Da Vinci, Leonardo. See *Vinci*.

Davis, Henry Winter. 1817–1865. American politician.

Davis, Jefferson. 1808–1889. American statesman and president of the Confederacy. Born in Kentucky; graduate of West Point; served in the Black Hawk war and Mexican war; elected to U. S. Senate from Mississippi in 1847; secretary of war 1853–7; re-elected senator in 1857; inaugurated provisional president of the Confederate States in 1861, and elected for six years in 1862. Imprisoned in Fortress Monroe for two years after the fall of Richmond. *History of the Civil War*.

Davoust (or **Davout**), Louis Nicholas, Duke of Auerstadt and Prince of Eckmühl. 1770–1823. Marshal of France.

Davy, Sir Humphrey. 1778–1829. English chemist. Demonstrated that the fixed alkalies are metallic oxides. Inventor of the safety lamp. *Researches Chemical and Philosophical*.

Dayton, William Lewis. 1807–1864. American statesman.

Dearborn, Henry. 1751–1829. Am. general and statesman.

Decatur, Stephen. 1779–1820. American naval commander. Defeated the Algerines. Killed in a duel.

De Foe (or **Defoe**), Daniel. 1661–1731. English novelist. Son of James Foe, a butcher, he assumed the prefix "de." Took part in the insurrection against James II. Imprisoned and pilloried in 1702 for publishing *The Shortest Way with Dissenters*, an ironical pamphlet. His works are over two hundred in number, and show great versatility and originality. *Robinson Crusoe; The True-born Englishman; The History of the Union; Memoirs of a Cavalier; Religious Courtship*.

De Kalb, John, Baron. 1732–1780. German general; accompanied Lafayette to America in 1777, and served under Washington. Killed at the battle of Camden.

De Haas, Maurice F. H. 1830?–.... Dutch marine painter.

Delacroix, Ferdinand V. E. 1799–1863. French painter.

De la Rame, Louisa. *Ouida*. 1840?–.... Eng. novelist.

Delaroche, Paul. 1797–1856. French painter.

Delaware, Thomas West, Lord. ....–1618. Gov. of Virginia.

Delmas, Antoine Guillaume. 1768–1813. French general.

Delorme, Marion. 1612–1650. French beauty and courtesan.

Del Sarto, Andrea Vannuchi. 1488–1530. French painter.

Demetrius Phalereus. 345?–284? B.C. Attic orator and philosopher.

Demetrius Poliorcetes. 335?–284? B.C. Macedonian general.

Democritus. *The Laughing Philosopher.* 460–361 B.C. Greek philosopher.

Demosthenes. 385?–322 B.C. Athenian orator. Conquered an impediment in his speech, and by perseverance and determination became the greatest of orators. Opposed Philip of Macedon, against whom he delivered his *Philippics*. It being proposed to reward his public services with a golden crown, a bitter contest ensued with his rival Æschines, in which Demosthenes, however, was triumphant. This led to the oration *On the Crown*, considered his greatest achievement. Condemned to death by Antipater, he committed suicide by poison. He left sixty orations.

Denis, Saint. .... 272. Apostle and patron of France.

De Quincey, Thomas. 1785–1859. Eng. author. The son of a wealthy merchant. Contracted the opium habit while pursuing his studies at Oxford—a habit which he overcame, in 1820, after a severe and prolonged struggle. His *Confessions of an Opium-Eater*, written as an autobiography, and published in 1821, created a great sensation. De Quincey was a brilliant writer, and left numerous works.

Derby, Edward Geoffrey Smith Stanley, Earl of. 1799–1869. English statesman and orator. Translator of Homer's *Iliad*.

Derby, Edward Henry Smith-Stanley, Earl of. 1826–.... English statesman.

Descartes, René. 1596–1650. Fr. philosopher and mathematician. *Discourse on the Method of Reasoning Well, and of Investigating Scientific Truth*; *Meditationes de Prima Philosophia*; *Principles of Philosophy*. "I think, therefore I am."

Desfontaines, René Louiche. 1752–1833. French botanist.

De Smet, Peter John. 1801–1873. Jesuit missionary to the Indians.

Des Moulins, Camille. 1762–1794. Fr. Jacobin; guillotined.

De Soto, Ferdinand. 1460–1542. Spanish explorer; discovered the Mississippi river.

Dessalines, Jean Jacques. 1760–1806. Negro emperor of Hayti.

De Vigny, Alfred, Count. 1799–1863. Fr. novelist and poet.

De Witt, Jan. 1625–1672. Dutch statesman.

Diaz, Porfirio. 1830–.... President of Mexico.

Dibdin, Charles. 1745–1814. English song writer

Dick, Thomas. 1772–1857. Scottish author.

Dickens, Charles. 1812–1870. English novelist. After studying at college, he was articled to an attorney, but found the study of law uncongenial, and became a reporter for the press. *Sketches by Boz* appeared in the London *Morning Chronicle* in 1836. *Pickwick Papers*; *Oliver Twist*; *Dombey & Son*; *Bleak House*; *Hard Times*; *Nicholas Nickleby*; *David Copperfield*; *A Tale of Two Cities*; *Great Expectations*, etc.

Dickinson, Anna Elizabeth. 1842–.... Am. lecturer.

Diderot, Denis. 1712–1784. Fr. philosopher and novelist

Dilke, Sir Charles Wentworth. 1843–.... English statesman, editor and author. *Greater Britain*.

Diocletian. 284–305. Roman emperor.

Diogenes. Died 323 B.C. Greek Cynic philosopher. Lived in a tub, affecting great contempt for the comforts of life.

Dionysius. *The Elder.* 430?–367 B.C. Tyrant of Syracuse.

Dionysius. *The Younger.* 398–340? Tyrant of Syracuse.

Dionysius of Halicarnassus. 70?–7? B.C. Greek historian.

Disraeli, Benjamin. See *Beaconsfield*.

Disraeli, Isaac. 1766–1848. Father of preceding. English litterateur; born of a Jewish family. *Curiosities of Literature*.

Dix, John Adams. 1798–1879. Am. general and statesman.

Dixon, William Hepworth. 1821–1879. English traveller and historian.

Dodge, Mary Abigail. *Gail Hamilton.* 1838?–.... American authoress.

Dodsley, Robert. 1709–1764. English author and bookseller. For some time employed as a footman. *The Footman's Miscellany*.

Doellinger, John Joseph Ignatius. 1799–1890. German theologian and historian; leader of the "Old Catholic" movement.

Domenichino. (Zampieri). 1581–1641. Italian painter.

Dominic, Saint. 1170–1221. Spanish preacher, and founder of the order of Dominicans

Domitian. 51?–96. Rom. emperor. Cruel and depraved.

Donatus. Fl. 300. Founder of the Donatists.

Donizetti, Gaetano. 1798–1848. Italian composer. *Lucia di Lammermoor*; *Lucrezia Borgia*.

Donnelly, Ignatius. 1832–.... Am. statesman and author.

Dore, Paul Gustave. 1832–1883. French artist.

Doria, Andrea. 1468–1560. Genoese patriot and commander.

Dorr, Thomas Wilson. 1805–1854. American politician.

Dorset, Charles Sackville, Earl of. 1637–1706. English poet and wit.

Dorset, Thomas Sackville, Earl of. 1536–1608. English poet and statesman.

Dorsey, John Syng. 1783–1818. American surgeon.

Douglas, Archibald. *Bell-the-Cat.* ....–1514? "The great earl of Angus." Lord chancellor.

Douglas, James, Earl of. ....–1330. Scottish patriot.

Douglas, Stephen Arnold. *The Little Giant.* 1817?–1861. American statesman. Native of Vermont, admitted to the bar in New York; removed to Illinois and gained distinction as an orator. Judge of Illinois Supreme Court 1841, elected to Congress 1843; senator 1847. Supported the compromise measures of Henry Clay, and advocated the doctrine known as "squatter sovereignty." Re-elected to the Senate 1853, and reported the bill repealing the Missouri compromise. Candidate for the Democratic nomination for the presidency in 1856. Defeated Lincoln for the U. S. senate in 1858, they canvassing the state together. Candidate of one wing of the Democratic party for president in 1860. Supported the Union party in 1861.

Douglass, Frederick. 1817?–.... Am. orator; formerly a slave; native of Maryland. His father was a white man and his mother a negro slave. Sold to a shipbuilder in 1832, but escaped to Massachusetts and assumed the name of Douglass. Exhibiting rare powers as an orator, he was aided by Wm. L. Garrison and others, and employed, in 1841, by the American Anti-Slavery Society.

Dow, Lorenzo. 1777–1834. American preacher.

Dow, Neal. 1804– . American prohibitionist.

Draco (or Dracon). Fl. 624 B.C. Athenian lawgiver.

Drake, Sir Francis. 1540–1595. English naval hero; first English circumnavigator of the globe, captured or destroyed one hundred vessels in the port of Cadiz in 1587, and contributed in 1588 to the defeat of the Spanish Armada.

Drake, Joseph Rodman. 1795–1820. American poet.

Draper, John William. 1811–1882. American scientist.

Drayton, Michael. 1563–1631. English poet.

Dreyse, Johann Nikolaus von. 1787–1867. Prussian inventor of the needle-gun.

Drusus, Claudius Nero. 38–9 B.C. Roman general.

Dryden, John. 1631–1700. English poet, critic and dramatist. Educated at Cambridge. Wrote some spirited heroic stanzas in memory of Cromwell. After the accession of Charles II., he became a stanch royalist. His first drama, *The Wild Gallant*, was published in 1662; *Annus Mirabilis* and *The Indian Emperor*, 1667. Appointed poet-laureate in 1668. He next wrote his *Essay on Dramatic Poetry* and several comedies and tragedies. *Absalom and Achitophel*, 1681. Became a Roman Catholic in 1686 and wrote *The Hind and Panther*, a poetical allegory. His ode on *Alexander's Feast*, considered the finest English lyric, appeared in 1696, after he had completed his translation of Virgil. Lord Macaulay calls Dryden "an incomparable reasoner in verse."

Du Chaillu, Paul Belloni. 1835–.... French traveller.

Dudevant, Mme. Amantine Lucille Aurore (*née* Dupin). *George Sand.* 1804–1876. French novelist. Married at the age of 18 to a retired army officer, she separated from him ten years later. She was at one time a zealous Catholic, but later adopted most liberal views, adopting man's attire and denouncing the marriage system. She edited a democratic paper during the revolution of 1848. She has left numerous novels and several dramas.

Dudley, Benjamin Winslow. 1785–1870. Am. physician.

Dudley, Charles Edward. 1780–1841. American senator.

Dufaure, Jules Armand Stanislas. 1798–.... Fr. statesman.

Dufferin, Frederick Temple Hamilton Blackwood, Earl of. 1826–.... English statesman. Governor-general of Canada.

Dumas, Alexandre. 1803–1870. French novelist.

Dumas, Alexandre. 1824–.... Son of above. Fr. novelist.

Dumouriez, Charles François. 1739–1823. French general.

Duncan I. ....–1040. Scottish king. Killed by Macbeth.

Dundonald, Thomas Cochrance, Earl of. 1775–1860. British admiral.

Dunglison, Robley. 1798–1869. American physician. *Medical Dictionary.*

Dunois, Jean de. *Bastard of Orleans.* 1402–1468. French national hero. Natural son of the Duke of Orleans. Defeated the English at Montargis in 1427, and assisted at the siege of Orleans in 1429. Expelled the English from Normandy and Guienne, and was created Count d'Orleans.

Duns Scotus. *The Subtle Doctor.* 1265?–1308. Scottish theologian.

Dunstan, Saint. 925–988. English prelate.

Dupanloup, Felix Antoine Filibert. 1802–1878. Fr. prelate.

Dupleix, Joseph, Marquis. 1695–1763. Fr. governor in India.

Dupont, Samuel Francis. 1803–1865. Am. rear-admiral.

Duquesne, Abraham. 1610–1688. Fr. naval commander.

Durer, Albrecht. 1471–1528. German painter and engraver. *Crucifixion; Adoration of the Magi; The Knight and Death; Revelation of St. John.*

Dwight, Timothy. 1752–1817. Am. author and divine.

EARLY, Jubal A. 1818?–.... Confederate general.

Eastlake, Sir Charles Lock. 1793–1865. English painter.

Eaton, Amos. 1777–1842. American naturalist.

Eaton, William. 1764–1811. American soldier.

Eble, Jean Baptiste. 1758–1812. French general.

Edes, Benjamin. 1732–1803. Am. patriot and journalist.

Edgeworth, Maria. 1767–1849. English novelist.

Edgeworth, Richard Lovell. 1744–1817. English author; father of preceding.

Edison, Thomas Alva. 1847–.... American electrician and inventor.

Edmund I. 922?–946. Anglo-Saxon king. **II.,** *Ironside,* 989–1016.

Edmunds, George F. 1828–.... American lawyer and statesman. Born in Vermont; admitted to the bar 1849; became U. S. senator in 1866 to fill an unexpired term, and has since been continuously re-elected. Elected pres. of Senate 1883. Retired 1891.

Edward I. ....–925. King of the Anglo-Saxons. **II.,** *The Martyr,* 960?–978; assassinated by order of his stepmother. **III.,** *The Confessor,* 1004–1066.

Edward I. *Longshanks.* 1239–1307. King of England; conquered Wales and Scotland. **II.,** 1284–1327; defeated by Bruce at Bannockburn; dethroned by the Queen and her favorite, Roger de Mortimer, in 1326; was murdered the following year. **III.,** 1312–1377; son of Edward II.; proclaimed king in 1327; executed Mortimer, and imprisoned the queen-mother; carried on war with France and won the great victory of Crecy. **IV.,** 1441–1483. **V.,** 1470–1483; ascended the throne at the age of 13, but assassinated two months later. **VI.,** 1537–1553.

Edward, Prince of Wales. *The Black Prince.* 1330–1376. Son of Edward III. Participated in the invasion of France, commanding the main body of the English at Crecy. Won the battle of Poitiers.

Edward the Confessor. 1004–1066. King of England.

Edwards, Amelia Blandford. 1831–.... English novelist.

Edwards, Jonathan. 1703–1758. American theologian and metaphysician. *Freedom of the Will.*

Edwin. 586?–633. King of Northumbria.

Edwy. 938–958. King of the Anglo-Saxons.

Effingham. See *Howard, Charles.*

Egbert. *The Great.* 775?–838. Saxon king of Wessex.

Egmont, Lamoral, Count. 1522–1568. Flemish statesman and soldier. Tried for treason and executed.

Elbee, Gigot d'. 1752–1794. Vendean general.

Eldon, John Scott, Earl of. 1751–1838. English statesman.

Elgin, James Bruce, Earl of. 1811–1863. British statesman. Governor-general of Canada.

Elgin, Thomas Bruce, Earl of. 1777–1841. British diplomatist. The "Elgin Marbles," in the British museum, were obtained by him at Athens and sold to the government for £35,000.

Eliot, George. See *Evans, Marian C.*

Eliot, John. *Apostle of the Indians.* 1604–1690. English clergyman. Ttranslated the Bible into the Indian language.

Eliot, Sir John. 1590–1632. Eng. orator and statesman.

Elizabeth. 1533–1603. Queen of England. Daughter of Henry VIII. Proclaimed Queen 1558; restored the Protestant religion. During her reign the Spanish Armada was repulsed, and Mary Stuart executed. Essex, Leicester and Raleigh were among her favorites.

Elizabeth Petrovna. 1709–1762. Empress of Russia. Daughter of Peter the Great. Ascended the throne in 1741; took up arms against Frederick the Great, and her armies in 1760 captured Berlin. Though unmarried, she was the mother of a large family.

Elizabeth, Saint. 1207–1231. Queen of Hungary.

Ellenborough, Edward Law, Lord. 1748–1818. English chief justice.

Ellenborough, Edward Law, Earl of. 1790–1871. English statesman.

Ellery, William. 1727–1820. American patriot.

Elliot, George Augustus, Lord Heathfield of Gibraltar. 1718–1790. British commander.

Elliott, Ebenezer. *The Corn Law Rhymer.* 1781–1849. English poet.

Elliott, Jesse Duncan. 1782–1845. American commodore.

Ellsworth, Ephraim Elmer. 1837–1861. American officer.

Ellsworth, Oliver. 1745–1807. Am. jurist and statesman.

Ellwood, Thomas. 1639–1713. English Quaker author.

Elssler, Fanny. 1811–1884. Viennese dancer.

Elzevir. A celebrated family of printers and publishers at Leyden, 1570–1680.

Emerson, Ralph Waldo. 1803–1882. American essayist, philosopher and poet. Born in Boston; graduate of Harvard; ordained Unitarian minister in 1829, but retired from the ministry in 1832; travelled in Europe, and on his return began lecturing. The first volume of his *Essays* appeared in 1841, and his *Representative Men,* regarded by some as his greatest work, in 1850.

Emmanuel. *The Great.* 1469–1521. King of Portugal.

Emmet, Robert. 1780–1803. Irish patriot and orator. Early in life became a leader of the "United Irishmen," and in 1803 became implicated in the killing of Lord Kilwarden, chief justice of Ireland, and others. Although defending himself with great eloquence, he was sentenced to death and executed.

Emmet, Thomas Addis. 1764–1827. Brother of the preceding. A leader of the "United Irishmen," and imprisoned from 1798 till 1801. Removed to America in 1804, and was in 1812 elected attorney-general of New York.

Empedocles. 475–.... B.C. Greek philosopher.

Encke, Johann Franz. 1791–1865. German astronomer.

Endicott, John. 1589–1665. Colonial governor of Mass.

Enghien, Louis Antoine Henri de Bourbon, Duc d'. 1772–1804. French prince. Charged with conspiracy, and executed by order of Napoleon.

Ennius, Quintus. 239–169 B.C. Roman epic poet.

Enoch (or **Henoch**). 3378–....B.C. Father of Methuselah. Translated at the age of 365.

Epaminondas. 412?–362 B.C. Theban statesman, orator and general. Defeated the Spartans at Leuctra; died after his victory at Mantinea, from a wound received in battle.

Epictetus. 60–.... Greek Stoic philosopher. *Enchiridion.*

Epicurus. 340?–270 B.C. Greek philosopher; founder of the Epicurean school.

Erasmus, Desiderius. 1465–1536. Dutch scholar.

Erastus, Thomas. 1524–1583. Ger. physician and writer.

Eratosthenes. 276–196? B.C. Greek geometer. Considered the founder of the science of astronomy.

Eric XIII. 1382–1450. King of Sweden (VII. or VIII. of Denmark). XIV., 1535?-1577.

Eric the Red. Fl. 1000. Scandinavian navigator; discovered Greenland.

Ericsson, John. 1803–1889. Swedish engineer and inventor. Constructed the "Monitor" which destroyed the Confederate iron-clad Merrimac.

Erigena, Joannes Scotus. Fl. 850. Irish philosopher.

Ernesti, Johann August. 1707–1781. German scholar.

Erskine, Ebenezer. 1680–1754. Scottish theologian.

Erskine, Henry. 1746–1817. Scottish lawyer and orator.

Erskine, Thomas, Baron. 1750–1823. Scottish lawyer and orator. Recognized as the greatest advocate of his time. "He spoke as his clients would have spoken, being endowed with his genius." Admitted to the bar in 1778; successfully defended Lord George Gordon in 1781; elected to the House of Commons in 1783, and again in 1790; secured the acquittal of Hardy and John Horne Tooke in the state trials of 1794; was made lord chancellor, and created a peer in 1806; retired from office in 1807.

Escobar y Mendoza, Antonio. 1589–1669. Spanish Jesuit and casuist. *Cases of Conscience.*

Espartero, Joaquin Baldomero, Duke de la Vittoria. 1792–1879. Spanish statesman and general; defeated the Carlists.

Essex, Robert Devereux, second Earl of. 1567–1601. Favorite of Queen Elizabeth; beheaded for high treason.

Essex, Robert Devereux, third Earl of. 1592–1647. English Parliamentary general.

Estaing, Charles Hector, Count d'. 1729–1794. French admiral; beheaded.

Esterhazy de Galantha, Paul. 1635–1713. Hungarian governor-general.

Ethelbeld. ....–860? King of Wessex.

Ethelbert. 455?–616. King of Kent.

Ethelbert. ....–866. King of the Anglo-Saxons.

Ethelred I. ....–871. King of the Anglo-Saxons. **II.,** *The Unready,* 968-1016; ordered massacre of Danes in 1002.

Ethelwulf. ....–858. King of Wessex.

Euclid of Alexandria. Fl. 300 B.C. Greek mathematician.

Eudoxie (or **Eudocia**). 394?–461. Roman empress.

Eugene of Savoy. (Prince François Eugene de Savoie-Carignan). 1663-1736. Austrian general. Defeated the Turks at Zenta; associated with Marlborough at Blenheim, Oudenard and Malplaquet; defeated the Turks at Peterwaradin in 1716, and at Belgrade in 1717.

Eugenie Marie de Montijo. 1826–.... Empress of the French; wife of Napoleon III.

Eugenius I. Pope; ruled from 654 to 658. **II.,** 824–827. **III.,** 1145-1153. **IV.,** 1431-1438; deposed; died in 1447.

Euler, Leonard. 1707–1783. Swiss mathematician.

Euripides. 480–406? B.C. Greek tragic poet.

Eusebius of Nicomedia. Fl. 325. Arian prelate.

Eusebius Pamphili. 266–340? Ecclesiastical historian, and bishop of Cæsarea.

Evald, Johannes. 1743–1781. Danish poet.

Evans, Marian C. *George Eliot.* 1820–1881. English novelist. The daughter of a clergyman. Lived with George H. Lewes, as his wife, for several years, and after his death married J. W. Cross. *Adam Bede; Romola; Middlemarch; Daniel Deronda.*

Eustachi, Bartolommeo. 1510–1574. Italian anatomist.

Evarts, William Maxwell. 1816–.... American lawyer and statesman. Leading counsel for the defence in the impeachment trial of President Johnson; attorney-general 1868-9; counsel for the United States in 1872 before the Geneva Arbitration Tribunal.

Evelyn, John. 1620–1706. English author. *Sylva.*

Everett, Edward. 1794–1865. American scholar, orator and statesman. Graduated at Harvard, 1811, and ordained a minister in 1814. Appointed professor of Greek at Harvard 1815, but did not occupy the chair until 1819, after completing a course of study at Göttingen and travelling extensively in Europe. Elected to Congress in 1824, remaining in that body for ten years, and in 1835 became governor of Massachusetts. Minister to England, 1841–5. Secretary of state, 1852. Elected to the United States Senate, 1853, but resigned on account of illness. Defeated for the vice-presidency in 1860. Supported the Federal government during the civil war.

Ewing, Thomas. 1789–1871 American statesman.

Exmouth, Edward Pellew, Viscount. 1757–1833. English admiral

Eyck, van, Hubert. 1366–1426 Flemish painter.

Eyck, van, Jan. *John of Bruges.* 1390?–1440? Brother of preceding. Flemish painter *Adoration of the Magi.*

Eyre, Edward John. 1818?–.... Eng. explorer in Australia.

Ezekiel. Fl. 7th century B.C. Hebrew prophet.

Ezra. Fl. 5th century B.C. Hebrew law-maker.

FABER, Frederick William. 1815–1863. English priest and writer.

Fabius Maximus, Quintus. *Cunctator.* 203 B.C. Roman consul and general. As opponent of Hannibal he inaugurated the "Fabian" policy, carrying on only a defensive war.

Faed, Thomas. 1826–.... Scottish painter.

Fahrenheit, Gabriel Daniel. 1686–1740 German natural philosopher and inventor of the Fahrenheit thermometer.

Fairfax, Thomas, Lord. 1611–1671. Parliamentary general. As commander-in-chief in 1645, won the battle of Naseby.

Falconer, William. 1735?–1769. Scot. poet. *The Shipwreck.*

Faliero (or **Falieri**), Marino. 1278–1350. Doge of Venice; the hero of Byron's tragedy.

Faneuil, Peter. 1700–1743. American merchant.

Faraday, Michael. 1791–1867. English chemist and natural philosopher. Founder of the science of magneto-electricity.

Farnese, Alessandro, Duke of Parma. 1546–1593. It. general.

Farquhar, George. 1678–1707. Irish dramatist. *The Beaux' Stratagem; The Constant Couple.*

Farragut, David Glascoe. 1801–1870. American admiral. Passed the New Orleans forts and captured New Orleans in 1862, and was made rear-admiral same year. Congress created for him the office of vice-admiral in 1864, and he was made admiral in 1866.

Faust, Karl. 1825–.... German composer.

Faust, Dr. Johann. Fl. 1500. German necromancer.

Faust, Johann. ....–1466? One of the inventors of printing.

Fawkes, Guy. ....–1606. English conspirator; executed. ("Gunpowder plot.")

Fearne, Charles. 1749–1494. English jurist.

Featherstonhaugh, George William. ....–1866. American traveller and geologist.

Fechter, Charles Albert. 1824–1879. English actor.

Fenelon, François de Salignac de la Mothe. 1651–1715. French prelate and author. *Telemachus.*

Ferdinand (of Saxe-Coburg). 1861– ... Prince of Bulga.

Ferdinand I. 1503–1564. Emperor of Germany. **II.,** 1578-1637; king of Bohemia and Hungary. **III.,** ....-1657.

Ferdinand IV. 1751–1825. King of Naples. (I. of the two Sicilies.)

Ferdinand II. 1810–1859. King of the two Sicilies.

Ferdinand I. *The Great.* 1000–1065. King of Castile. **V.,** *The Catholic* (II. of Aragon, III. of Naples, II. of Sicily), 1452-1516; founded the Spanish monarchy. **VI.,** *The Wise*, 1713-1759. **VII.,** 1784-1833.

Ferguson, Adam. 1724–1816. Scottish philosopher.

Ferguson, James. 1710–1776. Scottish astronomer.

Fergusson, James. 1808–1886. Scottish architect.

Fernandez, Diniz. Fl. 1446. Portuguese navigator.

Fernandez, Juan. ....–1576. Spanish navigator.

Fernel, Juan. 1497–1558. French physician and writer.

Ferry, Jules François Camille. 1832–.... Fr. statesman.

Fersen, Axel von, Count. 1755–1810. Swedish field-marshal.

Fesch, Joseph, Cardinal. 1763–1836. French prelate.

Fessenden, William Pitt. 1806–1869. Am. statesman.

Feuerbach, Paul Johann Anselm. 1775–1833. German jurist. Reformer of the criminal law.

Feuillet, Octave. 1812–1890. French author.

Fichte, Immanuel Hermann. 1797–1879. Ger. philosopher.

Fichte, Johann Gottlieb. 1762–1814. Ger. metaphysician.

Field, Cyrus West. 1819–.... American merchant and financier. Established the first telegraph cable between America and Europe, via Newfoundland.

Field, David Dudley. 1805–.... American jurist.

Fielding, Henry. 1707–1754. Eng. novelist and dramatist. Son of Edmund Fielding, a lieutenant-general under Marlborough. Commenced reading law at 18, but discontinued this study in a few years, and began to lead a dissolute life. About this time, however, he produced several successful plays. After marrying, and squandering his wife's fortune, he resumed the study of law, but, gout preventing his practicing, he turned his mind to literature. In 1749 his great novel, *Tom Jones*, was published. In 1750 he was appointed a magistrate, and endeared himself to the inhabitants of the London suburbs by suppressing numerous bands of robbers. Among Fielding's novels, besides *Tom Jones*, may be mentioned *Amelia* and *Joseph Andrews.*

Fieschi, Joseph Marco. 1790–1836. Corsican conspirator; inventor of the so-called infernal machine. Leader in a conspiracy to kill Louis Philippe. Executed.

Fiesco (or Fieschi), Giovanni Luigi, Count of Lavagna. 1525-1547. Genoese conspirator. Having sent some of his adherents to capture the palace of the Dorias, he made a night attack on the Doria galleys in the harbor, but fell while passing from one galley to another, and was drowned before help could reach him.

Fiesole, Giovanni da. *Fra Angelico.* 1387–1455. It. painter.

Fillmore, Millard. 1800–1874. American statesman; thirteenth president of the United States. Born in New York; learned fuller's trade; read law and acquired a lucrative practice in Buffalo. Elected to Congress 1832, and continued a member of that body till 1842. Elected vice-president 1848, and became president on the death of Taylor, in 1850. Approved the Fugitive Slave Law and the compromise measures of Henry Clay, and made Daniel Webster secretary of state.

Fish, Hamilton. 1808–.... American statesman.

Fisher, John. 1459–1535. English prelate; executed. Opposed the Reformation.

Fitch, John. 1743–1798. Am. inventor. (Steamboat.)

Fitzgerald, Edward, Lord. 1763–1798. Irish revolutionist.

Flaminius, Caius. ....–217 B.C. Rom. general and consul.

Flaminius, Titus Quintius. 230–174 B.C. Roman general and consul.

Flamsteed, John. 1646–1719. Eng. astronomer.

Flaxman, John. 1755–1826. English sculptor.

Fleetwood, Charles ....–1692. Eng. Parliamentary general.

Fletcher, Andrew (*of Saltoun*). 1653–1716. Scottish author.

Fletcher, John. 1576–1625. English poet and dramatist; associate of Beaumont. *The Maid's Tragedy; The Faithful Shepherdess.*

Flotow, Frederick Ferdinand Adolphus von. 1812–1883. German composer. *Martha.*

Fontenelle, Bernard de Bovier de. 1657–1757. Fr. author.

Foote, Andrew Hull. 1806–1863. American rear-admiral.

Foote, Samuel. 1720–1777. English wit and comedian.

Ford, John. 1586–1639. English dramatist.

Forrest, Edwin. 1806–1872. American tragedian.

Forster, John. 1812–1876. English biographer.

Forster, William Edward. 1818–1886. English statesman.

Forsyth, John. 1780–1841. American statesman.

Fortescue, Sir John. 1395?–1485? English jurist.

Fortuny, Mariano. 1839–1874. Spanish painter.

Foscari, Francesco. 1373–1457. Doge of Venice.

Foster, Birket. 1812–.... English engraver.

Foster, Stephen Collins. 1826–1864. Am. song-writer.

Fourier, François Charles Marie. 1772–1837. French socialist; founder of Fourierism. *Theory of Universal Unity.*

Fowler, Orson Squire. 1809–1887. Am. phrenologist.

Fox, Charles James. 1749–1806. English orator and statesman. Entered Parliament in 1768 as a Tory, but joined the opposition in 1773, and became leader of the Whigs, in which capacity, and also as foreign secretary and secretary of state, he opposed the policy of Pitt.

Fox, George. 1624–1690. English founder of the society of Friends, or Quakers.

Fox, John. 1517–1587. English Protestant clergyman and author. *Book of Martyrs.*

Foy, Maximilian Sebastian. 1775–1825. French orator and general.

Fra Bortolommeo di San Marco. See *Baccio della Porta.*

Fra Diavolo. (Michael Rozzo.) 1769–1806. Neapolitan brigand.

Francia, Jose Gaspar Rodriguez. 1757?–1840. Dictator of Paraguay; adopted a policy cutting off all intercourse with other nations.

Francis I. 1494–1547. King of France; defeated at Pavia. II., 1543–1560.

Francis I. 1708–1765. Emperor of Germany. **II.** (I. of Austria), 1768–1835.

Francis II. 1836–.... King of the Two Sicilies.

Francis Borgia, Saint. 1510–1572. Duke of Gandia and Viceroy of Catalonia; joined the Society of Jesus and became a zealous preacher; elected general of the order in 1565.

Francis de Paula, Saint. 1416–1507. Italian Franciscan monk; founded the order *Fratres Minimi.*

Francis de Sales, Saint. 1567–1622. French Jesuit, writer and orator; bishop of Geneva. *Treatise on the Love of God.*

Francis of Assisi, Saint. 1182–1226. Italian founder of the Franciscan order.

Francis Joseph Charles. 1830–.... Emperor of Austria.

Francis, John Wakefield. 1789–1861. Am. physician.

Francis, Sir Philip. 1740–1818. British statesman and writer. Believed to have been the author of the *Letters of Junius.*

Francis Xavier, Saint. See *Xavier.*

Franklin, Benjamin. 1706–1790. American statesman and philosopher. Born in Boston; the youngest of a family of seventeen children. His father was a tallow-chandler and soap-boiler. Learned the trade of a printer and studied diligently. Removed to Philadelphia, where he established the *Pennsylvania Gazette.* Began the publication of *Poor Richard's Almanac* in 1735. Discovered the identity of lightning and electricity in 1752, by means of a kite. Franklin occupied many positions of public trust and was the recipient of many honors. He was deputy postmaster-general of the colony; delegate to the Continental Congress; minister to France, 1776–85; president of Pennsylvania, 1785–8; member of the convention of 1787.

Franklin, Sir John. 1786–1847. English Arctic explorer; perished in the Arctic regions.

Fredegonde. 546?–596. Wife of Chilperic I. of France.

Frederick I. *Barbarossa.* 1121–1190. Emperor of Germany. Crowned by Pope Adrian IV. Reduced Milan in 1158, but was defeated by the Lombards near Legnano. Joined the third crusade in 1189 with 150,000 men, and defeated the Turks at Iconium. Died in the Holy Land. **II.,** 1194–1250. Opposed by the Guelphs and the pope in his project to unite Italy and Germany in one empire. Began a crusade against the Moslems in 1227, but turned back, and was excommunicated by Pope Gregory IX. Resumed the crusade in 1228, captured Jerusalem and made peace with the pope. Defeated the Guelphs at Cortenuova, 1237, and renewed war with the pope.

Frederick William. *The Great Elector.* 1620–1688. Elector of Brandenburg; founder of the Prussian monarchy.

Frederick I. 1657–1713. First king of Prussia. **II.** (*Frederick the Great*), 1712–1788. Subjected to inhuman treatment in youth by his father, he gave but little promise of his future greatness. Ascended the Prussian throne in 1740, and invaded Silesia, which was ceded to him by Maria Theresa in 1742. An alliance having been formed against him by Austria, Russia and France, he began the Seven Years' War in 1756 by invading Saxony. Gained a great victory at Prague in 1757, but was defeated at Kolin soon afterward. His affairs were now in a desperate condition, but in the same year he defeated a French army twice as large as his own at Rossbach, and won a brilliant and decisive victory over the Austrians at Leuthen. In 1759 he was defeated at Kunnersdorf, and Berlin was captured by the allies, but in 1760 he gained the victories of Liegnitz and Torgau, and peace was made in 1763, Prussian Poland being added to Frederick's dominions. Besides being a great general and monarch, Frederick was a voluminous writer.

Frederick William I. 1688–1740. King of Prussia. Father of Frederick the Great. **II.,** 1744–1797. **III.,** 1770–1840; founded the Zollverein. IV., 1795–1861.

Frederick III (Frederick William). 1831–1888. King of Prussia and emperor of Germany.

Frederick VI. 1768–1839. King of Denmark. **VII.,** 1808–1863.

Freeman, Edward Augustus. 1823–•••• English historian. *The Norman Conquest; Historical Essays; History of Federal Government.*

Freiligrath, Ferdinand. 1810–1876. German lyric poet.

Frelinghuysen, Theodore. 1787–1862. Am. statesman.

Frelinghuysen, Frederick Theodore. 1817–1885. Nephew of preceding. American statesman.

Fremont, John Charles. 1813–1890. American politician, explorer and general. Republican candidate for the presidency in 1856.

Freycinet, Charles Louis de. 1828–.... French statesman.

Froebel, Frederick. 1782–1852. German educator; founder of the "Kindergarten."

Froila I. 722–768. King of Spain.

Froissart, Jean. 1337–1410? French historian. *Chronicles.*

Froude, James Anthony. 1818–.... English historian. *Short Studies on Great Subjects; History of Henry VIII.*

Fry, Elizabeth (*née* Gurney). 1780–1845. Eng. philanthropist.

Fuller, Melville W. 1833–.... Chief justice of the U. S.

Fuller, Sarah Margaret, Countess d'Ossoli. 1810–1850. Am. authoress.

Fulton, Robert. 1765–1815. American engineer and inventor of the steamboat. Born in Pennsylvania. After spending some years in London as an artist, he turned his attention to civil engineering and inland navigation. In 1796 he published a treatise on *Canal Navigation.* Went to Paris, and there invented a submarine torpedo. He returned to New York in 1801 and, with the assistance of Robert Livingston, discovered steam navigation. In 1806 he built the steamer Clermont, which made regular trips between Albany and New York at a speed of five miles an hour. Although he spent a large amount of money on his invention, the patent did not prove of pecuniary value to him.

Fuseli, John H. 1742–1825. Swiss historical painter.

GADSDEN, Christopher. 1724–1805. American statesman.

Gadsden, James. 1788–1858. American statesman. (The Gadsden purchase.)

Gage, Thomas. 1720?–1787. British general in America.

Gaines, Edmund Pendleton. 1777–1849. American general.

Gaines, Myra Clark. 1805–1885. Wife of E. P. G. American heiress.

Gainsborough, Thomas. 1727–1788. English painter.

Galba, Servius Sulpicius. B.C. 4?–A.D. 69. Roman emperor.

Galen. 131–205? Greek physician, medical writer and philosopher, living at Rome. *De Locis Affectis.*

Galerius, Caius Valerius Maximianus. ....–311. Roman emperor.

Galilei, Galileo. *Galileo.* 1564–1642. Italian astronomer. Discovered, about 1584, the isochronism of the vibrations of a pendulum, and the law by which the velocity of falling bodies is accelerated. Adopted in astronomy the system of Copernicus, and constructed his wonderful telescope in 1609. Through it he discovered the satellites of Jupiter, and was enabled to explore the surface of the moon and view the phases of Venus. He also ascertained that the "milky way" was composed of myriads of stars. In 1632 he produced his *Dialogues on the Ptolemaic and Copernican Systems,* but was compelled by the

Inquisition to abjure the theory of the motion of the earth. He was detained in prison for several years, but it does not seem that he was severely treated, as he was allowed to pursue his studies until prevented by blindness.

Gall, Franz Joseph. 1758–1828. German physician; founder of phrenology.

Gallatin, Albert. 1761–1849. American statesman; native of Switzerland. Secretary of the treasury, 1801–13.

Gallaudet, Thomas Hopkins. 1787–1851. American clergyman and instructor of deaf-mutes.

Gallienus, Publius Licinius Valerius. 233?–268. Roman emperor.

Gallitsin, or Galitzin. An illustrious family of Russian princes.

Galt, John. 1779–1839. Scottish novelist.

Galvani, Aloisio. 1737–1789. Italian discoverer of galvanism.

Gama, Vasco da. 1450?–1524. Portuguese navigator.

Gambetta, Leon. 1838–1882. French radical orator and statesman.

Gambier, James, Baron. 1756–1833. British admiral.

Garcilaso de la Vega. 1503–1536. Spanish poet.

Gardiner, Stephen. 1483–1555. Eng. prelate and statesman.

Garfield, James Abram. 1831–1881. Twentieth president of the United States. Born in Ohio; worked on a farm in boyhood, and learned the trade of a carpenter; afterward became driver and helmsman of a canal-boat; graduated at Williams College in 1856; appointed professor of Latin and Greek at Hiram College, Ohio, and chosen president of that institution in 1858. About this time he married Miss Lucretia Randolph, and occasionally acted as a Campbellite minister. Elected to the state senate in 1859, and in 1861 was chosen colonel of an Ohio regiment; promoted to the rank of brigadier-general. Elected to Congress in 1862, and remained in that body until 1880, when he was made senator. Nominated for the presidency by the Republican party in 1880, and elected the following November. Shot by Charles J. Guiteau, in Washington, July 2, 1881, and died on September 19 of same year.

Garibaldi, Giuseppe. 1807–1882. Italian patriot and general.

Garrick, David. 1716–1779. English actor.

Garrison, William Lloyd. 1804–1879. Am. abolitionist.

Garth, Sir Samuel. 1672?–1719. Eng. physician and poet.

Gascoigne, George. 1535–1537. English poet.

Gaskell, Elizabeth Cleghorn. 1810–1865. English authoress.

Gassendi, Pierre. 1592–1655. French savant.

Gates, Horatio. 1728–1806. American Revolutionary general; born in England. Captured Burgoyne's army at Saratoga.

Gatling, Richard Jordan. 1818–.... American inventor.

Gauss, Carl Friedrich. 1777–1855. German mathematician.

Gautama Booddha. 624–543? B.C. Hindoo reformer, and founder of Buddhism. See *Buddha*.

Gautier, Théophile. 1811–1872. French poet and novelist.

Gaveston, Piers de. ....–1312. Favorite of Edward II. of England; executed by the nobles.

Gay, John. 1688–1732. English poet.

Gay-Lussac, Joseph Louis. 1778–1850. French chemist and natural philosopher; discovered cyanogen.

Gellert, Christian Fürchtegott. 1715–1769. German poet.

Genevieve, Saint. 422?–512. French religious, said to have converted Clovis to Christianity. Patron of Paris.

Genghis Khan. 1163–1227. Mogul conqueror; subdued China and Persia.

Genseric. 406?–477. King of the Vandals. Invaded Africa, 429; defeated the Romans in numerous battles; captured Carthage, 439; captured and sacked Rome, 455; defeated the navy of the Emperor Marjorian in 457.

Geoffroy of Monmouth. 1100?–1154. Eng. chronicler.

George I. (Lewis.) 1660–1727. King of Great Britain. **II.** (Augustus), 1683–1760. Defeated the French at Dettingen in 1743. Charles Edward Stuart was defeated at Culloden, 1746, by the Duke of Cumberland, and the latter part of the reign of George II. was marked by victories over the French in Canada, in India, and on the ocean. **III.** (William Frederick), 1738–1820. Arbitrary and ignorant, and through his obstinacy lost the American colonies. Became insane in 1810. **IV.** (Augustus Frederick), 1762–1830. "The First Gentleman of Europe." Led a dissipated life and incurred an immense debt. Married, in 1786, Mrs. Fitzherbert. She being a Roman Catholic, the marriage was illegal. As his father refused to pay his debts unless he contracted a regular marriage, he was induced, in 1795, to marry his cousin, whom he regarded with great dislike, a separation being the result. Became regent 1811. Took little interest in public affairs. One year before his death, an act was passed relieving Roman Catholics from political disabilities.

George, Saint. Fl. 3d century. Bishop of Alexandria. Patron saint of England. To him is attributed the destruction of a terrible dragon.

Gerard-Thom, or Tenque. 1040?–1121. Founder of the Knights of St. John of Jerusalem.

Germanicus, Cæsar. B.C. 14–A.D. 19. Roman general.

Gerome, Jean Léon. 1824–.... Fr. painter.

Gerry, Elbridge. 1744–1812. Am. Revolutionary statesman; signer of the Declaration of Independence. Governor of Massachusetts, 1810; vice-president, 1812.

Gessler. ....–1307. Austrian bailiff killed by Tell.

Gesner, Conrad. 1516–1565. Swiss naturalist.

Ghiberti, Lorenzo. 1378–1455. Florentine sculptor.

Gibbon, Edward. 1737–1794. English historian. Educated at Oxford. The first volume of his great work, *History of the Decline and Fall of the Roman Empire*, appeared in 1776; the next two in 1781, and in 1783 he retired to Lausanne, in Switzerland, where he completed the last three volumes, which appeared in 1788. Gibbon has been justly criticised for the antagonism to the Christian faith shown in this work.

Gibson, John. 1791–1866. English sculptor.

Giddings, Joshua Reed. 1795–1864. Am. abolitionist.

Gifford, Sanford Robinson. 1823–1880. American painter.

Gifford, William. 1757–1826. English writer and critic; founder of the *Quarterly Review*. Studied at Oxford, after serving five years as a shoemaker's apprentice.

Gilbert, Sir Humphrey. 1539–1583. English navigator.

Gilbert, Sir John. 1817–.... English artist.

Gilbert, William Schwenck. 1836–.... English humorous author and librettist. *Bab Ballads; Pygmalion and Galatea; Pinafore; Patience; Pirates of Penzance; Iolanthe; Princess Ida*, etc.

Giles, Wm. Branch. 1762–1830. American statesman.

Gilray, James. 1785–1815. English caricaturist.

Girard, Stephen. 1750–1831. American merchant and banker, born in France. Founded Girard College.

Girardin, Emile de. 1806–1881. French journalist.

Giulio Romano. 1492–1546. Italian painter and architect.

Gladstone, William Ewart. 1809–.... English premier.

Glauber, Johann Rudolph. 1604–1668. German chemist.

Glendower, Owen. 1349?–1415. Welsh chieftain.

Gluck, Christoph Wilibald von. 1714–1787. Ger. composer.

Gobelin, Gilles and Jean. Fl. 1450. French dyers.

Godfrey of Bouillon. 1058?–1100. Leader of first crusade.

Godiva. *Lady Godiva.* Fl. 11th century. English heroine; wife of Leofric, Earl of Leicester.

Godman, John D. 1794–1830. Am. physician and naturalist.

Godunoff, Boris Fedorovitch. 1552–1605. Czar of Russia.

Godwin, William. 1756–1836. Eng. novelist. *Caleb Williams.*

Goethe, Johann Wolfgang von. 1749–1832. German poet and author, dramatist, scientist and statesman. *Faust; Wilhelm Meister; Egmont; Sorrows of Werther; Iphigenia in Tauris; West-Eastern Divan.*

Goffe, William. 1605?–1679. Eng. Puritan and regicide.

Goldsborough, Lewis M. 1805–1876. Am. rear-admiral.

Goldsmith, Oliver. 1728–1774. Irish poet and miscellaneous writer. Educated at Trinity College, Dublin, and afterward studied medicine. Squandered in dissipation a large portion of the funds furnished for his education. In London, he became the intimate friend of Dr. Johnson. His *Vicar of Wakefield* was written while he was under arrest for debt. *The Traveller; The Deserted Village; She Stoops to Conquer.*

Gomez, Sebastiano. 1616–1690. Spanish painter. A slave of Murillo, who liberated him and took him into his studio.

Gonsalvo de Cordova, Hernandez. *The Great Captain.* 1443?–1515. Spanish commander.

Goodrich, Samuel Griswold. *Peter Parley.* 1793–1860. American author.

Goodyear, Charles. 1800–1860. American inventor. (Vulcanized india-rubber.)

Gordon, George, Lord. 1750–1793. English agitator.

Gorgey, Arthur. 1818–.... Hungarian general.

Gore, Catherine Grace. 1799–1861. English novelist.

Gortschakoff, Alexander Michaelovitch, Prince. 1798–1883. Russian statesman and diplomatist.

Gottschalk, Louis Moreau. 1829–1869. Am. composer.

Gough, John B. 1822–1886. American temperance lecturer, born in England.

Gould, Augustus Addison. 1805–1866. American naturalist.

Gould, Hannah Flagg. 1789–1865. American poetess.

Gould, Jay. 1836–.... American railway financier.

Gounod, Charles François. 1818–.... French composer. *Faust; La Reine de Saba; Romeo and Juliet.*

Gower, John. 1320?–1402. English poet.

Gracchus, Caius Sempronius. 159–126 B.C. Rom. statesman.

Graham, John, Viscount Dundee. *Claverhouse.* 1650?–1689. Scottish officer, noted for merciless severity toward the Covenanters.

Graham, Sylvester. 1794–1851. American vegetarian.

Granger, Gideon. 1767–1822. American statesman.

Grant, James. 1822–1887. Scottish novelist.

Grant, Ulysses Simpson. 1822–1885. Eighteenth president of the United States. Born in Ohio; graduated at West Point, 1843; served in Mexico; became a captain in 1853. Resigned in 1854, and after passing some time in St. Louis, removed to Galena, Ill., in 1859, and engaged in business. In 1861 he was made aide-de-camp to the governor of Illinois, but soon after was chosen colonel of the Twenty-first Illinois Volunteers, and in July of same year was made brigadier-general. His war record is history. Made commander-in-chief of the Union armies in March, 1864. Elected to the presidency in 1868, and again in 1872, and after the expiration of his second term he travelled extensively in Europe and Asia,

Granville, Granville Geo., Earl. 1815–1891. English statesman.

Grattan, Henry. 1746–1820. Irish orator and statesman.

Gray, Asa. 1810–1888. American botanist.

Gray, Thomas. 1716–1771. English poet. Declined the position of poet-laureate. *Elegy.*

Greeley, Horace. 1811–1872. American journalist. Born in New Hampshire; learned the printer's trade, and worked as a journeyman printer in New York for one year. Founded the *New York Tribune* in 1841. A staunch Whig and Republican, he favored Fremont for the presidency in 1856, and Lincoln in 1860. Accepted the Democratic nomination in 1872, but was defeated at the election by Grant.

Green, John Richard. 1874–1883. English historian. *Short History of the English People.*

Green, Seth. 1817–1888. American pisciculturist.

Greene, Nathaniel. 1742–1786. Am. Revolutionary general.

Greenleaf, Benjamin. 1786–1864. American mathematician.

Greenleaf, Simon. 1783–1853. American jurist.

Greenough, Horatio. 1805–1852. American sculptor.

Gregory I. (Saint.) *The Great.* 540–604. Pope, ascending the pontifical chair in 590. II., ruled 715–731. III., 731–741. IV., 827–844. V., 997–999 VI. 1044–1047. VII. (St. Hildebrand), 1073–1085; excommunicated Henry IV. VIII., 1187; died same year XI., 1227–1241; excommunicated Frederick II. X., 1271–1276 XI., 1370–1378; condemned the doctrines of Wycliffe. XII., 1406–1409, when he and the anti-pope, Benedict XIII., were deposed by the council of Pisa; died 1417. XIII., 1572–1585; reformed the Julian calendar. XIV., 1590–1591; excommunicated Henry IV. of France. XV., 1621–1623. founded the Propaganda. XVI., 1831–1846; succeeded by Pius IX.

Gregory of Nyssa, Saint. 332–394. Greek father of the church.

Gregory of Tours, Saint. 540–595. French prelate and historian.

Gregory, James. 1638–1674. Greek geometer.

Gregory Nazianzen, Saint. 326?–389. Bishop of Constantinople.

Grenville, George. 1712–1770. Eng. statesman. (Stamp act.)

Grevy, François Paul Jules. 1807–1891. Fr. president.

Grey, Henry, Earl. 1802–.... English statesman.

Grey, Lady Jane. 1537–1554. Gifted English lady; executed.

Grimm, Friedrich Melchior, Baron. 1723–1807. Ger. writer.

Grimm, Jakob Ludwig (1785–1863), and Wilhelm Karl (1786–1859) German philologists; brothers.

Grisi, Giulia. 1812–1869. Italian singer.

Griswold, Rufus Wilmot. 1815–1857. American author.

Grotius (De Groot), Hugo. 1583–1645. Dutch jurist and theologian.

Grouchy, Emmanuel de, Marquis. 1766–1847. Fr. general.

Guarneri, Giuseppe A. 1683–1745. Italian violin-maker.

Guatemozin. 1497–1525. Last Aztec emperor of Mexico.

Guelph (or **Welf**). Noble German family, originally Italian.

Guiccioli, Teresa Gamba, Countess. 1801–1873. Friend of Byron.

Guido Reni. 1575–1645. Italian painter.

Guillotin, Joseph Ignace. 1738–1814. French physician; advocate of the guillotine.

Guiscard, Robert. 1015–1085. Norman commander.

Guise, Charles de. 1525–1574. Cardinal of Lorraine.

Guise, Claude de Lorraine de, Duke. 1496–1550. French general and statesman.

Guise, François de Lorraine de, Duke. 1519–1563.

Guise, Henry I. of Lorraine de, Duke. 1550–1588.

Guizot, François Pierre Guillaume. 1787–1874. French statesman and historian.

Gustavus I. (Gustavus Vasa.) 1496–1559. King of Sweden. II. (Gustavus Adolphus), 1594 1632. Defeated the Polish and Russian armies invading Sweden. Became the head of the Protestant league in

Germany and defeated Tilly at Leipsic in 1631, and on the banks of the Lech in 1632. At the great battle of Lützen, Wallenstein now commanding the imperial army, Gustavus was killed, but his troops nevertheless gained a complete victory. III., 1746-1792; assassinated. IV., 1778-1837; ascended the throne in 1792, but was deposed in 1809.

Gutenberg, Johann. (Gänsfleisch.) 1400–1468. German inventor of printing.

Guzman, Alfonso Perez de. 1258–1309. Spanish commander.

HACKLANDER, Friedrich Wilhelm von. 1816–1878. German novelist. *Military Life in Time of War.*

Hadrian (or **Adrian**). 76–138. Roman emperor.

Hafiz, Mohammed Sherns ed-Deen. 1300?–1390? Persian poet. *Divan.*

Hagedorn, Friedrich von. 1708–1754. German poet.

Hahnemann, Samuel Christian Friedrich. 1755–1843. German physician and founder of homœopathy.

Hale, Edward Everett. 1822–.... Am. clergyman and author.

Hale, Sir Matthew. 1609–1676. English jurist.

Hale, Nathan, Captain. 1755–1776. American patriot.

Halevy, Jacques F. F. E. 1799–1862. French composer.

Haliburton, Thomas Chandler. *Sam Slick.* 1802?–1865. Nova Scotian jurist and humorous writer.

Halifax, Charles Montague, Earl of. 1661–1715. English statesman.

Halifax, George Saville, Marquis of. 1630–1695.

Hall, Charles Francis. 1821–1871. Am. Arctic explorer.

Hall, James. 1811–.... American author and judge.

Hall, Mrs. S. C. (Anna Maria Fielding.) 1800–1881. Irish authoress. *Sketches of Irish Character; The Outlaw,* etc.

Hallam, Arthur Henry. 1811–1833. English critic and essayist.

Hallam, Henry. 1777–1859. Father of preceding. English historian and critic.

Halleck, Fitz-Greene. 1790–1867. American poet. *Marco Bozzaris; Fanny.*

Halleck, Henry Wager. 1714–1872. American general and lawyer.

Halley, Edmund. 1656–1742. English astronomer.

Hamilcar Barca. ....–229 B.C. Carthaginian general; father of Hannibal.

Hamilton, Alexander. 1757–1804. American orator, statesman, financier and general. Born in the West Indies. Secretary and aide-de-camp to Washington in Revolutionary war; chosen to the Continental Congress in 1782, but resigned in order to practice law; leading member of the convention of 1787; secretary of the treasury, 1789-95; became recognized leader of the Federal party. Hamilton died from a wound received in a duel with Aaron Burr, and his death was deeply deplored.

Hamilton, Sir William. 1788–1856. Scottish metaphysician.

Hamilton, Sir William Rowan. 1805–1865. Irish astronomer.

Hamlin, Hannibal. 1809–1891. American statesman.

Hampden, John. 1594–1643. English statesman and reformer. Entered Parliament in 1620. Denied the authority of the crown to levy tonnage without the consent of Parliament, and refused to contribute to the forced loan ordered by King Charles, for which he was imprisoned. Regaining his liberty and re-entering Parliament, he ably and firmly resisted the arbitrary measures of the crown. Intending, with his cousin, Oliver Cromwell, to emigrate in 1638, they were detained by order of council. In 1640 he was leader of the opposition in the Long Parliament, and the most popular public man in England. Impeached for high treason in 1642, together with four other members, the Commons refused to surrender them, the king himself going so far as to personally lead his guard in an attempt to arrest them in their seats. This caused the greatest excitement and indignation, so that the Commons were soon enabled openly to defy the regal authority. Hampden afterward raised a regiment for the Parliamentary army, and, after displaying great courage in numerous engagements, was slain in a skirmish with Prince Rupert's forces.

Hampton, Wade. 1755–1835. American general.

Hampton, Wade. 1818–.... Confederate general. Elected governor of South Carolina in 1876, and U. S. senator in 1878.

Hancock, John. 1737–1793. American statesman; president of the Continental Congress.

Hancock, Winfield Scott. 1824–1886. American general; second in command at Gettysburg. Democratic candidate for president in 1880.

Handel, George Frederick. 1684–1759. German composer. Composed sonatas at 10; produced *Almeria* at 18; settled in England in 1712, after spending some years in Italy, and became chapel-master of George I. The oratorio of *Saul* was produced 1740, and his greatest work, *The Messiah,* the greatest of oratorios, in 1741. Handel was stricken with blindness in 1751, but continued to conduct his oratorios. Buried in Westminster Abbey.

Hannibal. 247–183 B.C. Carthaginian general. Sworn by his father, Hamilcar Barca, to eternal enmity toward Rome; became commander of the Carthaginian forces, 221 B.C.; subdued several powerful Spanish tribes, and in 219 captured Saguntum, crossed the Alps, 218; defeated the Romans near the Ticinus and on the banks of the Trebia; routed Flaminius at Lake Thrasymene, 217; almost destroyed a superior Roman army near Cannæ, 216; captured Capua. Recalled to Carthage to repel a Roman invasion under Scipio Africanus, he was defeated at Zama in 202. Banished from Carthage about 194, through the enmity of the aristocracy. Finally ended his life by taking poison, to escape falling into the hands of the Romans.

Hans Sachs. 1494–1576. German poet and shoemaker.

Hardee, William J. 1818–1873. Confederate general.

Hardenberg, Friedrich von. See *Novalis.*

Hardicanute. 1017?–1042. King of England and Denmark.

Hardinge, Henry, Viscount. 1785–1856. English general.

Hardwicke, Philip Yorke, Earl of. 1690–1764. Eng. jurist.

Hardy, Thomas. 1840–.... English novelist. *Far from the Madding Crowd; Under the Greenwood Tree.*

Harley, Robert, Earl of Oxford. 1661–1724. Eng. statesman.

Harney, William Selby. 1798–1889. American general.

Harold I. *Harefoot.* ....–1041 King of England. **II.** ....–1066 Defeated by William the Conqueror, and slain.

Haroun-al-Raschid. 766?–809. Caliph of Bagdad.

Harrison, William Henry. 1773–1841. American general and ninth president.

Harrison, Benjamin. 1833–.... Born at North Bend, O. Graduated from college at 18; studied law and began practice at Indianapolis in 1854; elected reporter of the supreme court in 1860. This office he abandoned in 1862, to aid the cause of the Union, and rose to the rank of Brigadier-General. Elected U. S. Senator, 1881, and President, 1888.

Harte, Francis Bret. 1839–.... American writer and humorist. Born in New York; removed to California at 15, where he was successively miner, school-teacher and editor. Removed to Boston, and was appointed in 1878 consul to a German port. *Heathen Chinee; Luck of Roaring Camp,* etc.

Harvard, John. 1608?–1688. Founder of Harvard College.

Harvey, William. 1578–1657. English physician and anatomist. Discovered the circulation of the blood.

Hasdrubal. ....–207 B.C. Punic general; brother of Hannibal. Defeated the Scipios in Spain; slain at the Metaurus.

Hastings, Warren. 1732–1818. British general and statesman; president of the Council of Bengal, and governor-general of India. Defeated Hyder Ali, king of Mysore. After perpetrating great outrages against the Rajah of Benares and the Begums of Oude, in order to replenish the treasury, he resigned in 1775 and returned to England. Impeached soon afterward, and opposed in his trial by Burke, Sheridan and Fox, but acquitted.

Havelock, Sir Henry. 1795–1857. British general. Defeated the Sepoys in India, and relieved Lucknow.

Hawke, Edward, Lord. 1715–1781. English admiral.

Hawkins, Sir John. 1520–1595. English naval officer.

Hawthorne, Nathaniel. 1804–1864. American author. *Twice-told Tales; Mosses from an Old Manse; House of Seven Gables; Scarlet Letter; The Marble Faun; The Blithedale Romance.*

Haydn, Joseph. 1732–1809. German musical composer. Born of extremely poor parents; served some years as a chorister in Vienna; appointed in 1760 chapel-master to Prince Esterhazy, who became his patron; visited London 1791, where six of his symphonies were received with great enthusiasm. His masterpiece, the oratorio of *The Creation*, was produced in 1798.

Haydon, Benjamin Robert. 1786–1848. English painter.

Hayes, Isaac Israel. 1832–1881. American Arctic explorer.

Hayes, Rutherford Birchard. 1822–.... Nineteenth president of the United States. Born in Connecticut; admitted to the bar, 1845; brigadier-general in civil war; Congress, 1865–8; governor of Ohio, 1868–76. Republican candidate for the presidency in 1876; inaugurated president in 1877, the electoral commission to determine the result of the election of 1876 having decided, by a vote of eight to seven, that Hayes had received 185 electoral votes as against 184 for Samuel J. Tilden, the Democratic candidate.

Hayne, Robert Young. 1791–1840. American orator and statesman; opponent of Webster in discussing the constitution; governor of South Carolina.

Heath, William. 1737–1814. Am. Revolutionary general.

Heber, Reginald. 1783–1826. English prelate and author; bishop of Calcutta. *Hymns; Journey through India.*

Hegel, Georg Wilhelm Friedrich. 1770–1831. German philosopher, metaphysician and pantheist. His system of philosophy is developed in the *Encyclopædia of the Philosophical Sciences.*

Heine, Heinrich. 1799–1856. German lyric poet and author.

Heloise. 1101–1164. French nun; pupil and friend of Abelard.

Helps, Sir Arthur. 1817–1875. English author.

Helvetius, Claude Adrian. 1715–1771. Fr. philosopher.

Hemans, Felicia Dorothea (*née* Browne). 1794–1835. English poetess. Published her first volume of poems in 1808, and in 1812 married Capt. Hemans, but separated from him in 1818, she retaining all their children. *Restoration of the Works of Art to Italy.*

Hendricks, Thomas Andrews. 1819–1886. Am. statesman.

Hengist. ....–488. Jutish chief; founded kingdom of Kent.

Hennepin, Louis. 1640–1702? French Catholic missionary and explorer of the Mississippi.

Henrietta Maria. 1609–1669. Queen of England.

Henry I. *Beauclerc.* 1068–1135. King of England. Defeated his brother Robert and usurped the throne. II., 1133–1189; first of the Plantagenets; issued constitutions of Clarendon, which were, however, repealed about ten years later; conquered Ireland. During his reign Thomas à Becket was killed. III. (*of Winchester*), 1207–1272; warred with the barons. IV., *Bolingbroke*, 1366–1413; first king of the house of Lancaster. V. (*of Monmouth*), 1388–1422; conquered France. VI. (*of Windsor*), 1421–1471; his reign was made memorable by the war of the Roses. VII., 1456–1509; founded the Tudor dynasty. VIII., 1491–1547; defeated the French at Guinegaste and the Scotch at Flodden, 1513; made Thomas Wolsey prime minister; applied unsuccessfully to the pope for a divorce from Catherine of Aragon, his wife; favored the Reformation; deposed Wolsey and elevated Thomas Cranmer; had himself declared head of the church; married Anne Boleyn after the convocations of York and Canterbury had declared his marriage with Catherine invalid; declared the English Church independent of the papal see and abolished the monasteries, had Anne Boleyn executed in 1536, and married Jane Seymour the day after the execution; excommunicated by the pope, 1538; his third wife having died in 1537, he married Anne of Cleves in 1540; was divorced from her the same year and married Catherine Howard, who was executed on a charge of adultery in 1542; married Catherine Parr in 1543, she surviving him.

Henry I. 1005?–1060. King of France. II., 1518–1559; married Catherine de' Medici. III., *Henri de Valois*, 1551–1589; last of the Valois. IV., *Le Grand*, 1553–1610; king of Navarre; first of the Bourbons; assassinated.

Henry I. *The Fowler.* 876–936. Emperor of Germany. Defeated the Hungarians. II. (Saint), 972–1024. III., *The Black*, or *The Bearded*, 1017–1056. IV., 1050–1106; excommunicated by Gregory VII. V., 1081–1125; last of the Salic line. VI., 1165–1197. VII., 1262–1313.

Henry, Patrick. 1736–1799. American patriot and orator. Member of the Continental Congress; governor of Virginia.

Heraclitus. Fl. 500 B.C. Greek philosopher.

Herbert, George. 1593–1632. British poet and divine.

Herder, Johann Gottfried von. 1744–1803. German author.

Hermann (or **Arminius**). B.C. 16 – A.D. 21. German hero. Defeated the Romans A.D 9, near the Lippe.

Herod. *The Great.* B.C. 73 – A.D. 1. King of Judea.

Herodotus. 484?–408? B.C. Greek historian.

Herrick, Robert. 1591–1674. English divine and poet. *Hesperides, or Poems Human and Divine.*

Herschel, Sir John Frederick William. 1790–1871. English astronomer and philosopher.

Herschel, Sir William. 1738–1822. Father of preceding. German astronomer. Born in Hanover, but removed to England at 21; discovered Uranus.

Hesiod. Fl. 800 B.C. Greek poet. *Works and Days.*

Hezekiah. 750–698 B.C. King of Judah.

Hicks, Elias. 1748–1830. American Quaker preacher.

Hildreth, Richard. 1807–1865. Am. journalist and historian.

Hill, Sir Rowland. 1795–1879. Author of the English penny post system.

Hipparchus. Fl. 150 B.C. Bithynian astronomer.

Hippocrates. *The Father of Medicine.* 460–360? B.C. Greek physician.

Hoar, George Frisbie. 1826–.... Am. lawyer and statesman.

Hobart, Augustus Charles. *Hobart Pasha.* 1822–1886. Turkish naval commander, born in England.

Hobbes, Thomas. 1588–1679. English philosopher.

Hoche, Lazare. 1768–1797. French general.

Hoe, Richard March. 1812–1887. American inventor of printing presses.

Hofer, Andreas. 1767–1810. Tyrolese patriot; executed.

Hoffman, Charles Fenno. 1806–1884. American author.

Hogarth, William. 1697–1764. Eng. painter and engraver.

Hogg, James. *The Ettrick Shepherd.* 1772–1835. Scottish poet.

Hohenlohe, Hohenstaufen, Hohenzollern. Princely families of Germany.

Holbein, Hans. The Younger. 1497–1554. German painter. *The Dance of Death: Last Supper,* etc.

Holland, Josiah Gilbert. 1819–1881. American author. *Timothy Titcomb's Letters: The Bay Path,* etc.

Holmes, Oliver Wendell. 1809–.... American physician, author and poet. *The Autocrat of the Breakfast-table; Elsie Venner; The Guardian Angel; The Poet at the Breakfast-table; Poems*, etc.

Holt, Sir John. 1642–1709. English judge.

Homer. Fl. 1000 B.C. Greek poet, about whose life scarcely anything is known. Regarded as the greatest of poets. Supposed to have been blind and poor. Some doubt his existence, maintaining that the *Iliad* and *Odyssey*, the two great epics ascribed to him, are collections of songs from various poets.

Honorius, Flavius. 384–423. Roman emperor.

Hood, Thomas. 1799–1845. English poet and humorist. *Song of the Shirt; Bridge of Sighs; Dream of Eugene Aram; Whims and Oddities.*

Hook, Theodore Edward. 1788–1841. English author.

Hooker, Joseph. 1819–1879. American general.

Hooker, Richard. 1553–1600. English theologian.

Hopkins, Johns. 1795–1873. American philanthropist.

Hopkinson, Francis. 1738–1791. American author; signed the Declaration of Independence. *The Battle of the Kegs.*

Hopkinson, Joseph. 1770–1842. Son of F. H. American lawyer; author of *Hail Columbia.*

Horace. (Quintus Horatius Flaccus.) 65-8 B.C. Latin poet. *Odes; Epistles; Satires.*

Hosmer, Harriet Goodhue. 1830–.... American sculptor.

Houdin, Robert. 1805–1871. French conjurer.

Houdon, Jean Antoine. 1741–1828. French sculptor.

Houston, Sam. 1793–1863. American general and statesman. Governor of Tennessee, 1827-9; passed a number of years with the Cherokee Indians; commander-in-chief of the Texan forces in revolt against Mexico, and defeated and captured Santa Anna in 1836; elected president of Texas same year, and re-elected 1841; elected senator from Texas after its admission to the Union, in 1845, and governor in 1859.

Howard, Henry, Earl of Surrey. 1516–1547. Eng. poet.

Howard, John. 1726–1790. English philanthropist.

Howard, Oliver Otis. 1830–.... American general.

Howe, Elias. 1819–1867. American inventor.

Howe, Samuel Gridley. 1801–1876. Am. philanthropist.

Howells, William Dean. 1837–.... American author.

Howitt, William. 1795–1879. English author.

Hoyle, Edmund. 1672–1769. English author. *Games.*

Huck, Evariste Regis, Abbé. 1813–1860. Fr. missionary.

Hudson, Henry (or Hendrik). ....–1611. Eng. navigator.

Hughes, Thomas. 1823–.... English author and barrister. *Tom Brown's School-days.*

Hugo, Victor Marie, Vicomte. 1802-1885. French poet, novelist and dramatist. *Les Miserables; Nôtre Dame.*

Hull, Isaac. 1775–1843. American commodore.

Hull, William. 1753–1825. American Revolutionary general.

Humbert I. 1844– ... King of Italy.

Humboldt, Friedrich Heinrich Alexander von, Baron. 1769–1859. German scientist. *Cosmos: An Essay of a Physical Description of the Universe.*

Hume, David. 1711–1776. Scottish historian and philosopher. *History of England.*

Hunt, James Henry Leigh. 1784–1859. English poet and author. *The Seer.*

Hunt, William Henry. 1790–1864. English painter in water-colors.

Hunt, William Holman. 1826–.... English painter.

Hunter, David. 1802–1886. American general.

Hunter, John. 1728–1793. Scottish surgeon.

Huss, John. 1373–1415. Bohemian reformer. Burned at the stake by order of Emperor Sigismund.

Huxley, Thomas Henry. 1825–.... Eng. scientist. *Physiology.*

Hyacinthe, Père. See *Loyson.*

Hyder-Ali. 1718–1782. Hindoo prince.

Hypatia. Fl. 500. Female philosopher at Alexandria.

IBERVILLE, Pierre le Moyne d', Sieur. 1661–1706. Canadian military and naval commander.

Ibrahim Pasha. 1789–1848. Viceroy of Egypt.

Ibrahim Bey. 1735?–1816. Mameluke chief.

Ignatieff, Nicholas Pavlovitch. 1832–.... Russian general and diplomatist.

Ignatius, Saint. *Theophorus*. ....–107. Bishop of Antioch.

Ignatius, Saint. 799–877. Patriarch of Constantinople.

Ignatius de Loyola, Saint. See *Loyola.*

Inchbald, Elizabeth, Mrs. 1753–1821. English authoress and actress.

Ingelow, Jean. 1830–.... English poetess and novelist.

Ingersoll, Jared. 1749–1822. American lawyer.

Ingersoll, Robert G. 1833–.... Am. lawyer, author and lecturer.

Ingres, Jean A. D. 1781–1867. French painter.

Inman, Henry. 1801–1846. American portrait painter.

Inness, George. 1825–.... American landscape painter.

Innocent I. Pope, ruling from 402 to 417. During his reign Rome was sacked by Alaric. II., 1130–1143. III. (Lotharius.) Born in 1161, and chosen pope 1198. Put France under the ban, 1199, because Philip Augustus had repudiated his wife; promoted the fourth crusade, the result of which was the capture of Constantinople; deposed Otho, emperor of Germany, transferring the crown to Frederick of Sicily, subjected John of England to the papal see, compelling him to pay an annual tribute; crushed the Albigenses in 1214, and died two years later. IV. (Sinibaldo de Fieschi), 1243–1254. V., assumed the pontificate in 1276, and died same year. VI., 1352–1362. VII., 1404–1406. VIII., 1484–1491. IX., 1591; died same year. X., 1644–1655. XI., 1670–1686. XII., 1692–1700. XIII., 1721–1724.

Iredell, James. 1751–1799. American jurist.

Irenæus, Saint. 140?–202? Bishop of Lyons; martyr.

Irene. 752?–803. Empress of Constantinople.

Irving, Edward. 1792–1834. Eloquent Scottish divine.

Irving, John Henry Brodribb. 1838–.... English actor.

Irving, Washington. 1783–1859. American author. Born in New York city. Read law, travelled in Europe, and on his return was admitted to the bar, but devoted himself exclusively to literary pursuits. *Knickerbocker's History of New York* was published in 1809. In 1815 he sailed for Europe, remaining there a number of years and becoming an intimate friend of Walter Scott. About this time Irving lost all his property by the failure of his brother in New York, in whose business he was a silent partner. The *Sketch-Book* was written in England and appeared in 1818. Secretary of legation at London, 1829; minister to Spain, 1842–6. *Bracebridge Hall; Tales of a Traveller; Conquest of Granada; Life of Washington; Columbus; Wolfert's Roost*, etc.

Isabella I. *The Catholic*. 1451–1504. Queen of Castile. Wife of Ferdinand of Aragon; patroness of Columbus. II. (Maria Isabel Luisa), 1830–.... Ex-Queen of Spain.

Isabelle of France. 1292–1358. Queen of England, wife of Edward II., whom her adherents deposed, and with whose assassination she is charged. Her son, Edward III., ascended the throne and ordered her arrest, and she died after twenty years' incarceration.

Isaiah. Fl. 740 B.C. Hebrew prophet.

Iturbide, Don Augustin de. 1790–1824. Emperor of Mexico.

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Ivan III. (Vasilievitch). 1438–1505. Czar of Russia. **IV.** (Vasilievitch), *The Terrible*, 1529–1584.

JACKSON, Andrew. 1767–1845. American general and statesman; seventh president. Born in South Carolina; son of an Irishman; received but little education; served against the British in 178: · began the practice of law at Nashville, 1788; Congress, 1796; U. S. Senate, 1797; judge Tennessee Supreme Court, 1798–1804; fought several duels, killing Chas. Dickinson in 1806; defeated the Creek Indians, 1814, and was commissioned brigadier-general; defeated the British at New Orleans, 1815; successfully carried on war against the Seminoles, 1817–18; Senate, 1823, and nominated for the presidency, the opposing candidates being Clay, J. Q. Adams and W. H. Crawford. Although Jackson had the highest number of votes, he did not have the necessary majority, and Adams was elected by the House of Representatives. Clay's advocacy of Adams in this contest caused a bitter enmity between that gentleman and Jackson. Jackson was elected to the presidency, however, in 1828. He was the first president to remove public officers on account of their politics. Re-elected in 1832. In that year, the convention of South Carolina having declared the tariff laws of 1828 null and void, Jackson issued a proclamation declaring his intention to check by force of arms all movements tending to disunion.

Jackson, Thomas Jonathan. *Stonewall.* 1824–1863. Confederate general, native of Virginia Defeated Gen. Banks at Cedar Mountain, and captured Harper's Ferry with 10,000 prisoners, 1862. Killed by a company of his own men, mistaking him and his staff for Federal cavalry.

Jacquard, Joseph Marie. 1752–1834. French inventor.

Jamblichus. Fl. 320. Syrian Neo-Platonic philosopher.

James I. 1566–1625 King of England (VI. of Scotland). Executed Raleigh. A translation of the Bible was made under his direction. **II.**, 1633–1701. (VII. of Scotland.) Deposed by revolution.

James I. 1394–1431. King of Scotland. Assassinated. **II.**, 1430–1460. **III.**, 1453–1488. **IV.**, 1473–1513; defeated and slain at Flodden. **V.**, 1512–1542. **VI.** (I. of England). **VII.** (II. of England).

James, Henry, Jr. 1843–.... American novelist.

Jameson, Robert. 1774–1854. Scottish naturalist.

Janauschek, Fanny. 1830–.... Bohemian tragedienne.

Jansen, Cornelis. 1585–1638. Dutch theologian; founder of the Jansenists.

Januarius, Saint. 272–305. Patron saint of Naples.

Jasper, William. 1750–1779. Brave American soldier.

Jay, John. 1745–1829. Am. statesman; first chief justice.

Jeanne d'Albret. 1528–1572. Queen of Navarre.

Jean Paul. See *Richter*.

Jefferson, Joseph. 1829–.... American actor.

Jefferson, Thomas. 1743–1826. American statesman; third president. Born in Virginia; admitted to the bar, 1767; elected to Virginia House of Burgesses, 1769; Continental Congress, 1775; drafted the Declaration of Independence; governor of Virginia, 1779-81; minister plenipotentiary, 1784, to negotiate treaties with European powers; minister at Paris, 1785-9; secretary of state, 1789-93; elected vice-president 1796, and president in 1800, holding that office from 1801 to 1809.

Jeffrey, Francis. 1773–1850. Scottish critic and judge.

Jeffreys, George, Lord. 1650–1689. Infamous British judge; lord high chancellor under James II.; died in the Tower.

Jenkins, Edward. 1838–.... Eng author. *Ginx's Baby.*

Jenner, Edward. 1749–1823. English physician; introduced vaccination.

Jenner, Sir William. 1815–.... English physician and anatomist.

Jerome, Saint. 340?–420. Latin father of the church.

Jerome of Prague. 1378–1416. Bohemian religious reformer; follower of Huss. Burned at the stake.

Jerrold, Douglas William. 1803–1857. English humorist and satirical writer. *Mrs. Caudle's Curtain Lectures; Chronicles of Clovernook.*

Jervis, John, Earl of St. Vincent. 1734–1823. Eng. admiral.

Joan of Arc. (Jeanne d'Arc.) *The Maid of Orleans.* 1411?–1431. French heroine. Born in Lorraine, of an humble peasant family. Believing herself commissioned by Heaven to liberate France, and convincing Charles VII. of her divine authority, she was given command of a considerable force, and by the victories she gained enabled Charles to be crowned at Rheims. Although desirous of returning home and resuming her former humble peasant life, she was induced to retain her command in the army. She was captured in 1430, by the Burgundians, and delivered to the English. Charged with sorcery, she was burned at the stake after a mock trial.

Joel. Fl. 775 B.C. Hebrew prophet.

John I. (Saint). Pope, ruling from 523–526. **II.**, 533–535. **III.**, 560-573. **IV.**, 640-642. **V.**, 685-687. **VI.**, 701-705. **VII.**, 705-707. **VIII.**, 872-882. **IX.**, 898-900. **X.**, 915-928. **XI.**, 931-936. **XII.**, 956-964. **XIII.**, 965-972. **XIV.**, 984-985. **XV.**, died in 985, only a few days after his accession. **XVI.**, 986-996. **XVII.** (Rival of Gregory V. in 997.) **XVIII.**, 1003. **XIX.** 1004-1009. **XX.**, 1024-1033. **XXI.**, 1276. **XXII.**, chosen 1316; deposed 1327; died 1334. **XXIII.**, chosen in 1410; deposed 1414.

John. 1166–1216. King of England; granted Magna Charta.

John II. *The Good.* 1319–1364. King of France.

John II. (Casimir V.) 1609–1672. King of Poland. **III.** (Sobieski), 1625-1696.

John I. *The Great.* 1357–1433. King of Portugal.

John. 1801–1873. King of Saxony.

John of Austria, Don. 1547?–1578. Spanish general.

John of Gaunt (Ghent). 1340–1399. Duke of Lancaster. Son of Edward III.

John the Baptist. B.C. 5–A.D. 28. Prophet.

John the Evangelist. (St. John.) ....–100? Apostle.

Johnson, Andrew. 1808-1875. American statesman; seventeenth president. Born in N. C.; learned the trade of a tailor in Tenn; Congress, 1843-53; governor, 1853-7; senator, 1857; military governor, 1862; elected vice-president in 1864, and succeeded to the presidency on the death of Lincoln, 1865. Johnson became involved in a bitter quarrel with the leaders of the Republican party, and was impeached in 1868, but acquitted, although thirty-five senators voted on conviction to only nineteen against, a two-thirds majority being necessary. He was subsequently elected to the Senate from Tennessee as a Democrat

Johnson, Reverdy. 1796–1876. American statesman.

Johnson, Richard Mentor. 1780–1850. Ninth vice-president of the United States.

Johnson, Samuel. 1709–1784. Eng. writer and lexicographer.

Johnston, Albert Sydney. 1803–1862. Confederate general.

Johnston, Joseph Eccleston. 1809–1891. Confederate general.

Joliet, Louis. 1645-1700? Fr. explorer of the Mississippi.

Jomini, Henri, Baron. 1770–1869. Swiss military writer.

Jonah. Fl. 800 B.C. Hebrew prophet.

Jones, George. 1811–1891. American journalist. N. Y. *Times.*

Jones, John Paul. 1747–1792. American Revolutionary naval commander; born in Scotland. Captured the Serapis.

Jones, Sir William. 1746–1794. English orientalist.

Jonson, Ben. 1574–1637. English poet and dramatist. Too poor to graduate at Cambridge, he became a mason, and afterward served as a soldier in Flanders. Returned to England and joined a company of actors, but killed one of them in a duel and barely escaped death. *Every Man in his Humor*, his first drama, appeared in 1598. Appointed

poet-laureate by James I. Died in poverty. *Sejanus; The Alchemist: Catiline's Conspiracy.*

Joseffy, Raffaele, 1852–..... Hungarian pianist.

Joseph I. 1676–1711. Emperor of Germany. **II.,** 1741–1790; abolished feudal serfdom.

Josephine. (Marie Josephe Rose Tascher de la Pagerie.) 1763–1814. Empress of France; wife of Napoleon Bonaparte.

Josephus, Flavius. 37?–95? Jewish historian.

Joshua. 1537–1427 B.C. Hebrew leader.

Jovian. 331–364. Roman emperor.

Juarez, Benito Pablo. 1806–1872. Mexican Aztec statesman.

Judas Maccabæus. ....–160 B.C. Hebrew leader.

Judson, Adoniram. 1788–1850. Am. Baptist missionary.

Julian. *The Apostate.* 331–363. Roman emperor.

Julius I. Pope, 336–352. **II.,** 1503–1513. **III.,** 1550–1555.

Junot, Andoche, Duc d'Abrantes. 1771–1813. Fr. general.

Justin. *The Martyr.* 103–165? Church father in Palestine.

Justin I. 450–527. Byzantine emperor. **II.,** ....–578.

Justinian I. *The Great.* 482?–565. Byzantine emperor.

Juvenalis, Decimus Junius. 40?–125? Latin poet.

KALAKAUA, David. 1836–1891. King of Hawaii.

Kamehameha IV. 1834–1863. King of Hawaii.

Kames, Henry Home, Lord. 1696–1782. Scottish judge and writer. *Elements of Criticism.*

Kane, Elisha Kent. 1820–1857. American Arctic explorer.

Kant, Immanuel. 1724–1804. German metaphysician; founder of the transcendental school of philosophy. *Critique of Pure Reason.*

Kean, Edmund. 1787–1833. English tragedian.

Kearney, Philip. 1815–1862. American general.

Keats, John. 1795–1821. English poet. *Eve of St. Agnes.*

Keble, John. 1792–1866. Eng. divine. *The Christian Year.*

Keene, Laura. 1820–1873. American actress.

Kellermann, François Christophe de. 1735–1820. Fr. general.

Kellogg, Clara Louise. 1842–.... American vocalist.

Kemble, Charles. 1775–1854. Brother of J. P. K. Eng. actor.

Kemble, Frances Anne. 1809–.... English actress.

Kemble, John Philip. 1757–1823. English tragedian.

Kempis, Thomas à. 1380–1471. German ascetic writer. *Imitation of Christ.*

Kent, James. 1763–1847. American jurist. *Commentaries.*

Kepler, Johann. 1571–1630. German astronomer.

Key, Francis Scot. 1776–1843. American poet; author of *The Star-spangled Banner.*

Khosru I. ....–579. King of Persia. **II.,** ....–628.

Kidd, William. 1650–1701. American pirate; executed.

Kilpatrick, Hugh Judson. 1836–1881. American general.

King, Rufus. 1755–1827. American statesman.

King, William Rufus. 1786–1853. American statesman.

Kingsley, Charles. 1819–1875. English divine and author.

Kitto, John. 1804–1854. English Biblical scholar.

Kleber, Jean Baptiste. 1754–1800. French general.

Klopstock, Friedrich Gottlieb. 1724–1803. German poet.

Kneller, Sir Godfrey. 1648–1723. English portrait painter.

Knowles, James Sheridan. 1784–1862. English dramatist and actor; subsequently became a Baptist minister. *The Hunchback; Virginius.*

Knox, Henry. 1750–1806. American general and statesman.

Knox, John. 1505–1572. Leader of the Scot. reformation.

Koch, Robert. 1843–.... German bacteriologist.

Kosciusko, Thaddeus. 1746?–1817. Polish patriot and general; commanded the Polish insurgent army; bravely defended Warsaw, but was defeated.

Kossuth, Louis. 1802–.... Hungarian patriot, orator and statesman. Leading spirit in the insurrection of 1848–49.

Kuang Hsu. 1871–.... Emperor of China.

LABLACHE, Luigi. 1794–1858. Italian singer. His voice was of phenomenal range and unusual sweetness.

La Chaise d'Aix, François. *Père la Chaise.* 1524–1700. French Jesuit.

Lactantius. *The Christian Cicero.* 260?–325. Latin father of the church. *Institutiones Divinæ.*

La Fayette, Marie Jean Paul Roch Yves Gilbert Motier de, Marquis. 1757–1834. French general and patriot. Came to America in 1777 to aid the Americans in their struggle for independence, and was commissioned major-general; fought at Brandywine, where he was wounded, and in numerous other engagements; visited France and obtained supplies and munitions, returning in 1779; commanded the advance guard at Yorkstown, 1781; returned again to France; chosen commandant of the French National Guard in 1789; visited America in 1824, and was enthusiastically received; took a prominent part in the revolution of 1830.

La Fontaine, Jean de. 1621–1694. Fr. poet and fabulist.

Lagrange, Joseph Louis. 1736–1813. Fr. mathematician.

Lamartine, Alphonse de. 1792–1869. Fr. poet and statesman.

Lamb, Charles. 1775–1834. Eng. essayist. *Essays of Elia.*

Lambert, Daniel. 1769–1809. English giant.

Lambert, John. 1621–1694. Eng. Parliamentary general.

Lamotte-Fouque, Friedrich Heinrich Karl de, Baron. 1777–1843. German novelist and poet. *Undine.*

Landon, Letitia E. 1802–1838. *L. E. L.* English authoress. *Romance and Reality.*

Landor, Walter Savage. 1775–1864. English author. *Imaginary Conversations.*

Landseer, Sir Edwin. 1802–1873. English animal painter.

Langlande (or **Longland**), Robert. Fl. 1360. English monk and poet. *Vision of Piers Plowman.*

Langton, Stephen. ....–1228. English prelate.

Lannes, Jean, Duke of Montebello. 1769–1809. French marshal.

Lansdowne, William Petty, Marquis of. 1737–1805. English statesman.

Laplace, Pierre Simon, Marquis. 1749–1827. French astronomer and mathematician.

La Rochefoucauld, François de, Duke. 1613–1680. French moralist and statesman.

La Salle, Jean Baptiste. 1651–1719. Founder of the Christian Brothers.

La Salle, Robert Cavelier de. 1635?–1687. Fr. explorer.

Lasker, Eduard. 1829–1884. German statesman.

Latimer, Hugh. 1480–1555. English reformer; burned.

Latour d'Auvergne, Théophile Malo Corret de. 1743–1800. French officer, called by Napoleon "The First Grenadier of France."

Lauderdale, John Maitland, Duke of. 1616–1682. English cabal minister.

Laurens, Henry. 1724–1792. American statesman.

Lavater, Johann Caspar. 1741–1801. Swiss physiognomist.

Lavoisier, Antoine Laurent. 1743–1794. French chemist.

Law, John. 1671–1729. Scottish financier in France; promoted the "South Sea Bubble."

Lawrence, Amos. 1786–1852. American philanthropist.

Lawrence, James. 1781–1813. American naval hero; commanded the Chesapeake and engaged the British frigate Shannon off Boston. He was killed in the action, and his last words were: "Don't give up the ship."

Lawrence, Sir Thomas. 1769–1830. English painter.

Lawrence, Saint. ....–258. Roman martyr.

Layard, Austen Henry. 1817–.... English orientalist.

Lebrun, Anne Charles, Duke of Piacenza. 1775–1859. French general.

Lebrun, Charles. 1619–1690. French painter.

Lebrun, Charles François, Duke of Piacenza. 1739–1824. French statesman.

Lecky, William Edward Hartpole. 1838–.... Eng. author.

Lecouvreur, Adrienne. 1690–1730. French actress.

Ledru-Rollin, Alexandre Auguste. 1808–1874. Fr. socialist.

Ledyard, John. 1751–1788. American traveller.

Lee, Arthur. 1740–1792. American statesman. Brother of R. H. and F. L. Lee.

Lee, Charles. 1775–1782. Am. general; native of Wales.

Lee, Francis Lightfoot. 1734–1797. American patriot.

Lee, Henry. *Light-Horse Harry.* 1756–1818. American general and statesman. Governor of Virginia.

Lee, Richard Henry. 1732–1794. Am. orator and patriot.

Lee, Robert Edmund. 1806–1870. American general; commander-in-chief of the Confederate army. Son of Henry Lee. Born in Virginia; graduate of West Point; chief engineer of Gen. Scott's army in Mexico; Confederate brigadier-general 1861, and appointed to the chief command in 1862. Surrendered at Appomattox, April 9, 1865. Subsequently chosen president of Washington College, at Lexington, Va., where he died.

Leech, John. 1816–1864. English caricaturist.

Lefebvre, François Joseph, Duke of Dantzig. 1755–1820. French general.

Legouve, Ernest. 1807–.... French author.

Leibnitz, Gottfried Wilhelm von, Baron. 1646–1716. German philosopher and mathematician.

Leicester, Robert Dudley, Earl of. 1532?–1588. Favorite of Queen Elizabeth.

Leidy, Joseph. 1823–1891. American naturalist.

L'Enclos, Ninon de. 1616–1706. French beauty.

Leo I. 400?–474. Byzantine emperor. **III.**, 680?–741. **V.**, ...–820. **VI.**, 865?–911.

Leo I. (Saint). *The Great.* Pope, ruling from 440 to 461. **II.**, 682–684. **III.** (Saint), 795–816. **IV.**, 847–855. **V.**, 903; reigned only two months. **VI.**, 928–929. **VII.**, 937–939. **VIII.**, 963–965. **IX.**, 1049–1054. **X.** (Giovanni de' Medici), 1513–1521. **XI.**, 1605; died twenty-four days after his accession. **XII.**, 1823–1829. **XIII.** (Gioachimo Pecci.) Born at Carpineto, in the Papal States, 1810, the son of Count Ludovico Pecci; ordained a priest in 1837, and created Archbishop of Damietta in 1843; nuncio to Belgium three years; cardinal, 1853; cardinal camerlengo, 1877; elected to the papacy, to succeed Pius IX., February 20, 1878.

Leonidas. ....–480 B.C. King of Sparta; leader of the brave three hundred at Thermopylæ.

Leopold I. *The Great.* 1640–1705. Emperor of Germany. **II.**, 1747–1792.

Leopold I. 1790–1865. King of Belgium. **II.**, 1835–....

Lerdo de Tejada, Sebastian. 1825–.... President of Mexico.

Le Sage, Alain René. 1668–1747. Fr. novelist. *Gil Blas.*

Leslie, Alexander, Earl of Leven. ....–1661. Scot. general.

Lesseps, Ferdinand de, Viscount. 1805–.... French engineer and diplomatist. Planned the Suez canal, and the inter-oceanic canal across Panama.

Lessing, Gotthold Ephraim. 1729–1781. German author.

Leutze, Emanuel. 1816–1868. German historical painter.

Lever, Charles James. 1806–1872. Irish novelist. *Charles O'Malley; Tom Burke of Ours; Harry Lorrequer.*

Leverrier, Urbain J. J. 1811–1877. French astronomer.

Lewes, George Henry. 1817–1878. English author; husband of "George Eliot." *Biographical History of Philosophy.*

Lewis, Matthew Gregory. 1775–1818. English novelist.

Lewis, Meriwether. 1774–1809. American explorer.

Leyden, Lucas van. 1494–1533. Dutch painter.

Lieber, Francis. 1800–1872. German historical writer.

Liebig, Justus von, Baron. 1803–1873. German chemist.

Lincoln, Abraham. 1809–1865. Sixteenth president of the United States. Born in Kentucky; removed to Indiana when eight years old; captain in the Black Hawk war, 1832; elected to the Illinois legislature, 1834; admitted to the bar, 1836, and removed to Springfield, Ill; elected to Congress in 1846; Republican candidate for U. S. senator in 1854, his opponent being Stephen A. Douglas; nominated for the presidency and elected, 1860; re-elected 1864, but assassinated April 14, 1865, by John Wilkes Booth. His death was universally deplored, for his wise administration of affairs during the civil war had won for him the regard of both factions of the bloody controversy.

Lilinokalani. 1838–.... Queen of Hawaii.

Lind, Jenny. (Mrs. Goldschmidt.) 1821–1887. Swedish vocalist.

Linnæus, Charles. 1707–1778. Swedish botanist.

Lippi, Filippo. 1412–1469. Italian painter.

Liszt, Franz, Abbé. 1811–1885. Hungarian pianist.

Littleton (or **Lyttleton**), Sir Thomas. 1420?–1481. English jurist. *Tenures.*

Liverpool, Robert B. J., Earl of. 1770–1828. Eng. statesman.

Livingston, Edward. 1764–1836. American jurist.

Livingstone, David. 1817–1873. Scottish explorer in Africa. *Narrative of an Expedition to the Zambesi.*

Livy. (Titus Livius.) 59 B.C.–17 A.D. Roman historian.

Locke, John. 1632–1704. English philosopher. *Essay on the Human Understanding.*

Lockhart, John Gibson. 1794–1854. Scottish author.

Logan. *Tah-gah-jute.* 1725?–1780. American Indian chief.

Logan, Benjamin. 1742?–1862. Kentucky pioneer.

Logan, John Alexander. 1826–1887. American general and [illegible].

Lola Montez. 1820–1861. Creole ballet dancer.

Long, Roger. 1680?–1770. English astronomer.

Longfellow, Henry Wadsworth. 1807–1882. American poet. Born in Portland, Me.; graduated in 1825 at Bowdoin College, at which institution he took the chair of modern languages after travelling four years in Europe; held the same position at Harvard 1836–54. *Hyperion; Voices of the Night; The Spanish Student; Evangeline; Song of Hiawatha; Miles Standish; Tales of a Wayside Inn*, etc.

Longinus. Fl. 3d century. Greek philosopher.

Longstreet, James. 1821–.... Confederate general.

Lorne, John George Edward Henry Sutherland Campbell, Marquis of. 1845–.... Eng. author. Gov.-Gen. Canada 1878–83.

Lorraine. Charles IV., Duke of. 1604–1679. German general. V., 1643–1690.

Lossing, Benson John. 1813–1891. American historian.

Louis I. *Le Debonnair.* 778–840. Emperor of the West and king of France; divided the empire among his sons. **VI.,** *The Fat,* 1078?–1137. King of France. **IX.** (Saint), 1215–1270; led a large army against the Saracens in 1248; defeated and taken prisoner in Egypt, but effected his ransom; led another crusade in 1270, but died the same year near Tunis. He was a wise ruler, and noted for many virtues. **XI.,** 1423–1483; established post-offices. **XII.,** 1462–1515. **XIII.,** 1601–1643. **XIV.,** Le Grand, 1638–1715. ("I am the State.") **XV.,** 1710–1774. **XVI.,** 1754–1793; guillotined. **XVII.** (Dauphin), 1785–1795. **XVIII.,** *Monsieur,* 1755–1824.

Louis I. 1786–1868. King of Bavaria.

Louis IV. *The Bavarian.* 1285?–1345. Ger. emperor.

Louis Philippe. 1773–1850. "The citizen king" of France; abdicated 1848.

Louvois, François Michel Letellier de, Marquis. 1641–1691. French statesman; caused revocation of the Edict of Nantes.

Lover, Samuel. 1797–1868. Irish novelist. *Handy Andy; Rory O'Moore,* etc.

Lowell, James Russell. 1819–1891. American poet and critic; minister to Spain and to England. *The Bigelow Papers; Under the Willows; The Vision of Sir Launfal; Commemoration Odes; Fable for Critics; Among my Books; My Study Windows,* etc.

Lowell, John. 1799–1836. American statesman.

Loyola, Ignatius de. *Saint Ignatius.* 1491–1566. Spanish founder of the Society of Jesus, or Jesuits. Entered the army at an early age; crippled by a wound in 1520, he turned his attention to religion; made a pilgrimage to Jerusalem in 1523, and subsequently studied at the University of Paris, where he met Francis Xavier and James Lainez, in conjunction with whom, in 1543, he formed the society which has since become so celebrated.

Loyson, Charles. *Père Hyacinthe.* 1827–.... French reformer and ex-Carmelite.

Lubbock, Sir John. 1834–.... Eng. naturalist and stats.

Lucanus, Marcus Annæus. 38–65. Roman epic poet.

Lucian. 120?–.... Greek satirist.

Lucilius, Caius. 148?–100? B.C. Roman satiric poet.

Lucretius. (Titus Lucretius Carus.) 95–.... B.C. Latin poet.

Lucullus, Lucius Licinius. 110–57 B.C. Roman general.

Luther, Martin. 1483–1546. Leader of the Protestant Reformation. Born at Eisleben, in Germany, the son of a miner; educated at the University of Erfurt, and in 1505 entered the Augustine convent at that place; ordained a priest, 1507; became professor of philosophy at Wittenberg, 1508; visited Rome, 1510; denounced the sale of indulgences, 1517, and became involved in numerous controversies; cited to appear before Leo X., he refused to comply; burned the papal bull containing an order to destroy certain of his works, and denied the authority of the pope; excommunicated; enjoyed the support of the Elector of Saxony; attended the Diet of Worms, convened for his trial, in 1521; laid aside his monastic dress in 1524, and married Catherine von Bora, an ex-nun, in 1525; enjoyed, during the latter part of his life, the greatest distinction from the princes of Germany. Luther completed, in 1522, his translation of the New Testament, and in 1534 that of the Old Testament. The central point of his theology is justification by faith.

Luxembourg, François Henri de Montmorenci de. 1628–1695. Marshal of France.

Lycurgus. Fl. 850 B.C. Spartan law-giver.

Lyell, Sir George. 1797–1875. Scottish geologist.

Lyndhurst, John Singleton Copley, Lord. 1772–1863. Lord chancellor of England; born in Boston, Mass.

Lyon, Nathaniel. 1819–1861. American general. Born in Connecticut; graduate of West Point; appointed commander of the Department of the Missouri, 1861; killed at the battle of Wilson's Creek.

Lysander. ....–395 B.C. Spartan general.

Lysias. 458–378 B.C. Athenian orator.

Lysimachus. 355?–281 B.C. King of Thrace.

Lysippus. Fl. 330 B.C. Greek sculptor.

Lytton. See *Bulwer.*

MACAULAY, Thomas Babington, Baron. 1800–1859. English historian, critic and essayist. *History of England; Essays; Lays of Ancient Rome.*

Macbeth. ....–1056? King of Scotland.

McCarthy, Justin. 1830–.... Irish writer and Home Rule leader in Parliament. Came to America in 1868 and visited thirty-five of the United States. *My Enemy's Daughter; A Fair Saxon; History of Our Own Times,* etc.

Macchiavelli, Nicolo di Bernardo dei. 1469–1527. Italian statesman and author. Among his numerous writings are his *History of Florence* and *The Prince,* the latter of which (not intended for publication, but for the private perusal of the Medici) has rendered the name Macchiavelli the synonym of perfidy.

McClellan, George Brinton. 1826–1885. American general. Born in Philadelphia; graduate of West Point; served in the Mexican war, and in 1855 served on a commission sent by the government to make observations on the Crimean war; became chief engineer of the Illinois Central railroad in 1857; re-entered the army in 1861, taking command of the Federal troops in Western Virginia, and gained the victories of Rich Mountain and Cheat River; made commander of the army at Washington, and in November, 1861, became commander of the armies of the United States; gained a victory at Fair Oaks, 1862, but was forced to relinquish the plan of reducing Richmond; superseded by Gen. Pope, but recalled, and defeated the Confederates under Lee at Antietam; relieved of command about six weeks later; Democratic candidate for the presidency in 1864, and afterward elected governor of New Jersey.

McCosh, James. 1811–.... Scottish theologian in Am.

McCulloch, Hugh. 1808–.... American financier and Secretary of the Treasury.

Macdonald, Flora. 1720–1790. Scottish heroine; saved the life of "The Young Pretender."

Macdonald, George. 1824–.... Scottish poet and novelist. *David Elginbrod; The Portent; Wilfred Cumbermede; Malcolm; Unspoken Sermons; The Miracles of our Lord,* etc.

Macdonald, Sir John A. 1814–1891. Canadian premier.

McCloskey, John. 1810–1885. First American cardinal.

McDowell, Irvin. 1818–1885. American general.

MacMahon, Marie Edme Patrice Maurice de, Duc de Magenta. 1808–..... Marshal of France and president of the French republic.

Macpherson, James. 1738–1796. Scottish poet.

MacPherson, James Birdseye. 1828–1864. Am. general.

Macready, William Charles. 1793–1873. Eng. tragedian.

Madison, James. 1751–1836. Fourth president of the United States. Born in Virginia; member of the Virginia legislature and delegate to the convention of 1787; joint author with Jay and Hamilton of the *Federalist;* Congress, 1789–97; secretary of state, 1801–9, president, 1809–17.

Magellan, Fernando. 1470–1521. Portuguese navigator.

Magee, William C. 1822–1891. Primate of England.

Mahmood, Abool-Kasim-Yemeen-ed-Dowlah. 967–1030. Mohammedan conqueror; founder of the Gaznevide dynasty.

Mahomet. See *Mohammed.*

Maintenon, Françoise d'Aubigné de, Marquise. 1635–1719. Consort of Louis XIV.

Malibran, Maria Felicita (*née* Garcia). 1808–1836. French vocalist and actress.

Malthus, Thomas Robert. 1766–1834. English writer on political economy, and author of the "Malthusian theory."

Mandeville, Sir John. 1300–1372. English traveller.

Manfred. 1234–1266. King of Naples.

Manning, Henry Edward. 1808–1892. English Catholic prelate and author. United with the Roman Catholic church in 1851; archbishop of Westminster, 1865; cardinal, 1877.

Mansfeld, Ernst von, Count. 1585–1626. German general.

Mansfield, William Murray, Earl of. 1704–1793. British jurist.

Mantegna, Andrea. 1431–1506. Italian painter.

Manteuffel, Edwin Hans Carl von, Baron. 1809–1883. Prussian field-marshal.

Manuel I. Comnenus. 1120?–1180. Byzantine emperor. **II.** Palæologus, 1348-1425.

Manutius, Aldus. 1449?–1515. Venetian printer.

Manutius, Aldus. 1547–1597. Venetian printer and author.

Marat, Jean Paul. 1744–1793. French Jacobin demagogue, assassinated by Charlotte Corday.

Marcellus, Marcus Claudius. 268?–208 B.C. Roman consul. Conquered Syracuse; killed in a skirmish with the Carthaginians.

Margaret. *Semiramis of the North.* 1353–1412. Queen of Norway, Sweden and Denmark.

Margaret of Anjou. 1429–1482. Queen of Henry VI. of England.

Margaret of Angouleme. 1492–1549. Queen of Navarre and author. *Heptameron.*

Margaret of Austria. 1480–1530. Regent of the Netherlands.

Margaret of Valois. 1553–1615. Queen of France.

Margaret, Saint. 1046–1093. Queen of Scotland.

Margaret, Saint. ....–275. Virgin of Antioch; martyr.

Maria Christina. 1806–1878. Queen dowager of Spain.

Maria II. da Gloria. 1819–1853. Queen of Portugal.

Maria de' Medici. 1573–1642. Queen of France.

Maria Louisa. 1791–1847. Empress of France.

Maria Theresa. 1717–1780. Empress of Austria and Queen of Hungary and Bohemia.

Marie Antoinette. 1755–1793. Wife of Louis XVI. of France; guillotined.

Mario, Giuseppe, Marquis di Candia. 1810–1883. It. singer.

Marion, Francis. 1732–1795. Am. Revolutionary general.

Mariotte, Edme. 1620–1684. French phycisist.

Marius, Caius. 157–86 B.C. Roman general and consul.

Marlborough, John Churchill, Duke of. 1650–1722. English commander. Commanded the English forces in the Netherlands, 1689; commanded in Ireland, 1690; accused of treason, deposed and confined in the Tower, 1692; reinstated 1696; commanded the allied armies in Holland, 1702; won the battle of Blenheim, 1704; Ramilles, 1706; Oudenarde, 1708; Malplaquet, 1709.

Marlowe, Christopher. 1564–1593. English dramatist.

Marmont, Auguste Frederic Louis Viesse de, Duke of Ragusa. 1774-1852. French marshal.

Marquette, Jacques. 1637–1675. French missionary and discoverer: explored the Mississippi river.

Marryatt, Frederic. 1792–1848. English novelist and naval officer. *Midshipman Easy; Peter Simple,* etc.

Marsh, George P. 1801–.... American philologist.

Marshall, John. 1755–1835. American jurist and statesman; chief justice of the United States.

Martialis, Marcus Valerius. 43–104. Latin poet.

Martel, Charles, Duke of Austrasia. *The Hammer.* 694–741. Conquered the Saracens in the great battle of Tours, or Poitiers, 732.

Martineau, Harriet. 1802–1876. English writer.

Marx, Karl. 1818–1883. German socialist.

Mary I. *Bloody Mary.* 1516–1558. Queen of England. Married Philip II. of Spain; persecuted the Protestants. **II.,** 1662-1694; wife of William III.

Mary Stuart. 1542–1587. Queen of Scots. Daughter of James V. and Mary of Guise; educated in France, where she was married to the Dauphin in 1558, who the following year ascended the French throne as Francis II., but died childless, 1560; invited to the throne of Scotland, and married her cousin, Lord Darnley; suppressed, 1565, a revolt of the Protestants instigated by Queen Elizabeth; joined, 1566, a league to extirpate heresy, and, wearying of the arrogance and dissoluteness of Lord Darnley, bestowed her confidence on David Rizzio, an Italian musician, whose murder was instigated the same year by Mary's jealous husband. Lord Darnley himself was killed in 1567, and Queen Mary married the Earl of Bothwell the same year. Public sentiment in Scotland against her became so intense that she was compelled to take refuge in England, where she was finally beheaded on an unproven charge of conspiracy.

Masaniello. 1620–1647. Neapolitan insurgent leader.

Mason, James M. 1797–1871. American statesman.

Massasoit. 1580?–1661. Sachem of the Wampanoags.

Massena, André, Prince of Essling. 1758–1817. Fr. marshal.

Massinger, Philip. 1584–1640. English dramatist.

Mather, Cotton. 1663–1728. American divine and writer, notorious for his persecution of witchcraft.

Mathew, Theobald. *Father Mathew.* 1790–1856. Irish Catholic priest, called "The Apostle of Temperance."

Maurice. 1521–1553. Elector of Saxony; German general and Protestant leader.

Maurice of Nassau. 1567–1625. Dutch warrior; Prince of Orange.

Maximilian I. 1459–1519. Emperor of Germany.

Maximilian. (Ferdinand Maximilian Joseph.) 1832–1867. Archduke of Austria, and emperor of Mexico. Executed by the Mexicans.

Mazarin, Giulio, Cardinal. 1602–1661. Fr. prime minister.

Mazeppa, Ivan Stepanovitch. 1644–1709. Polish nobleman, and hetman of the Cossacks. Hero of Byron's poem.

Mazzini, Giuseppe. 1807–1872. Italian patriot.

Meade, George Gordon. 1815–1872. American general; won the battle of Gettysburg.

Medici, Alessandro de'. 1510–1537. First duke of Florence; assassinated.

Medici, Cosimo de'. *The Elder.* 1389–1464. Chief of the Florentine republic.

Medici, Cosimo de'. *The Great.* 1519–1574. First grand duke of Tuscany.

Medici, Lorenzo de'. *The Magnificent.* 1448–1492. Prince of Florence; scholar, and patron of literature and art.

Mehemet Ali. 1769–1849. Viceroy of Egypt.

Meissonier, Jean Louis Ernest. 1812–1891 French painter.

Melanchthon, Philip. 1497–1560. German reformer; leader of the Reformation after Luther's death. *The Augsburg Confession.*

Melikoff, Loris. 1824–1888. Russian general.

Melville, Andrew. 1545–1622. Scottish religious reformer.

Mendelssohn-Bartholdy, Felix. 1809–1847. Ger. comp.

Menelek. Emperor (or negus) of Abyssinia. Proclaimed March 12, 1889.

Menno, Simonis. 1496–1561. Frieslandic founder of the Mennonites.

Mercadante, Saverio. 1797-1870. Italian composer.

Merimee, Prosper. 1803–1870. French novelist.

Mesmer, Friedrich Anton. 1733–1815. German discoverer of "mesmerism."

Metellus, Quintus Cæcilius. Fl. 100 B.C. Roman general. Defeated Jugurtha, 109 B.C.

Metternich, Clemens Wenzel Nepomuk Lothar von. 1775–1859. Austrian statesman.

Meyerbeer, Giacomo. (Jakob Meyer-Beer.) 1794–1864. German composer. *Robert le Diable; Semiramide; Les Huguenots; L'Étoile du Nord.*

Michael Angelo. (Michelangelo Buonarotti.) 1474–1563. Italian painter, sculptor, architect and poet. Patronized by Lorenzo the Magnificent; invited to Rome by Pope Julius II., where he designed the church of St. Peter; became architect of that magnificent structure in 1546, and devoted the rest of his life almost exclusively to its completion. Among his productions are the frescoes in the Sistine chapel, including *The Last Judgment; The Holy Family;* a gigantic statue of David, and a marble group called *Pieta,* representing the Virgin as weeping over the dead body of the Savior.

Mifflin, Thomas. 1744–1800. American patriot; president of the Continental Congress.

Mill, James. 1773–1830. Scottish historian and writer.

Mill, John Stuart. 1806–1873. English philosopher and political economist. *The Principles of Political Economy.*

Millais, John Everett. 1829–.... English painter.

Miller, Hugh. 1802–1856. Scottish geologist.

Miller, Joaquin: (Real name, Cincinnatus Hiner Miller.) 1841–.... American poet. Born in Indiana, and emigrated to Oregon in boyhood. *The One Fair Woman,* a novel; *Pacific Poems; Songs of the Sierras,* etc.

Mills, Clark. 1815–1883. American sculptor.

Miltiades. Fl. 500 B.C. Athenian commander; gained the great victory of Marathon.

Milton, John. 1608–1674. English poet; educated at Cambridge; passed several years in travel; visited Galileo, and gained the friendship of many eminent personages; returning to England, he advocated the popular party, opposing prelacy and the established church; wrote many political and controversial works in prose; was appointed in 1648 Latin secretary of the Council of State; in 1654 he had become entirely blind. His *Paradise Lost* was completed in 1655, and sold for £10, half of which was not to be paid until after the sale of 1,300 copies. His sonnets are among the best in the language, and among his other works are *Comus; Il Penseroso: Samson Agonistes; L'Allegro; Paradise Regained; Lycidas.* Milton is justly considered one of the greatest poets of all time.

Minie, Claude Etienne. 1810–1879. French inventor.

Mirabeau, Honoré Gabriel de Riquetti de, Comte. 1749–1791. French orator and statesman. Entered the army in 1776; exiled and imprisoned for debt; separating from his wife, he eloped with a young woman in 1776, for which offence he was condemned to death; escaped, however, with four years' imprisonment; led a wandering life for several years, engaging in numerous intrigues; sent to Berlin on a secret mission in 1786, and elected to the States-General in 1789, and later to the National Assembly, of which he became president in 1791.

Mir Khodudal Khan. Khan of Baluchistan. Suc. 1857.

Mitchel, Ormsby Macknight. 1810–1862. American general and astronomer. Captured Huntsville, 1862.

Mitchell, Donald Grant. *Ik Marvel.* 1822–.... American author. *Reveries of a Bachelor; My Farm at Edgewood,* etc.

Mitford, Mary Russell. 1786–1855. American authoress.

Mitford, William. 1744–1827. English historian.

Mithridates VI. *The Great.* 132–63 B.C. King of Pontus. Allied with Tigranes, king of Armenia, he defeated the Romans in several battles.

Mohammed, or **Mahomet.** 569–.... Founder of the Moslem religion. Pretended, at the age of forty, to have received a revelation from Allah, and thenceforth devoted himself to the propagation of his new religion. Previous to this time he had been an idolater. His new faith, which included the unity of God, was rejected at Mecca, where a conspiracy was formed against him, but was warmly embraced in Medina, to which place the prophet fled in 622. From this flight, called the Hegira, the Mussulmans compute their time. After this event, Mohammed ceased to advocate liberty of conscience, but propagated the faith of Islam by the sword, gaining numerous victories, and spreading his religion over a large portion of Western Asia. The Koran was composed in separate chapters, as occasion required.

Mohammed II. *The Victorious.* 1430–1481. Turkish sultan. III., 1642–1692.

Moliere. (Jean Baptiste Poquelin.) 1622–1673. French dramatist and actor. Among his numerous comedies are *The Misanthrope* and *The Hypocrite* (*Tartuffe*).

Moltke, Carl Bernhard Helmuth von, Count. 1800–1891. Chief marshal of the German empire. Virtually commander-in-chief of the German armies in the Franco-German war, and designed the entire campaign.

Mommsen, Christian Matthias Theodor. 1817–.... German historian.

Monk, George, Duke of Albemarle. 1608–1670. English general; restored the monarchy.

Monmouth, James Scott, Duke of. 1649?–1685. Natural son of Charles II.; rebelled, but was defeated and executed.

Monroe, James. 1758–1831. Fifth president. Born in Virginia; captain in the war of 1812; studied law under Jefferson; Congress, 1783; opposed the constitution; governor of Virginia, 1799; envoy extraordinary to France, 1802; re-elected governor, 1811; appointed secretary of state same year by Madison; elected president, 1816, and re-elected 1820.

Montague, Lady Mary Wortley. 1690–1762. English authoress.

Montaigne, Michel Eyquem de. 1533–1592. French philosopher and essayist. *Essays.*

Montalembert, Charles Forbes de, Comte. 1810–1870. Fr. publicist; leader of the liberal Catholic party.

Montcalm, Louis J. de St. Véran, Marquis of. 1712–1759. French commander in Canada.

Montesquieu, Charles de Secondat, Baron de. 1689–1755. French jurist and philosopher.

Montezuma II. 1480?–1520. Last Aztec emperor of Mexico.

Montfort, Simon de. 1150?–1218. Norman crusader.

Montfort, Simon de, Earl of Leicester. 1200?–1265. Son of preceding. Led the barons against Henry III.

Montgolfier, Jacques Etienne (1745–1799) and Joseph Michel (1740-1810). French mechanicians; invented air-balloon.

Montgomery, James. 1771–1854. Scottish poet.

Montgomery, Richard. 1736–1775. American general; killed at Quebec.

Montgomery, Robert. 1807–1855. English poet.

Montmorenci, Anne de, Duc. 1493–1567. Fr. constable.

Montmorenci, Henri de, Duc. 1534–1614. Constable of France.

Montmorenci, Mathew de. 1175–1230. Constable of France.

Montrose, James Graham, Marquis of. 1612–1650. Scottish general. Executed.

Moody, Dwight Lyman. 1837–.... American evangelist. Born at Northfield, Mass.

Moore, Sir John. 1761–1809. British general; fell at Corunna.

Moore, Thomas. 1779–1852. Irish poet. *Lalla Rookh; Irish Melodies; The Loves of the Angels*, etc.

Morales, Luis. *El Divino*. 1509–1586. Spanish painter.

More, Hannah. 1745–1833. English authoress. *Cœlebs in Search of a Wife*.

More, Sir Thomas. 1480–1535. English statesman and philosopher; educated at Oxford; entered Parliament, 1504; produced *History of Richard III.*, 1513; *Utopia*, 1516; became a great favorite of Henry VIII., who made him lord chancellor in 1530; being an ardent Catholic, he refused to sanction the divorce of Queen Catherine and resigned his office in 1532; imprisoned in 1534 for declining to take an oath acknowledging the validity of the king's marriage to Anne Boleyn, and executed the following year for denying the king's supremacy as head of the church.

Moreau, Jean Victor. 1763–1813. French general. Victor at Hochstadt and Hohenlinden; fell at Dresden.

Morelos, Jose Maria. 1780–1815. Mexican revolutionist.

Morgan, John Hunt. 1825–1863. Confederate cavalry officer and major-general. ("Morgan's raid.")

Mornay, Philippe de, Seigneur du Plessis-Marly. *Du Plessis Mornay*. 1549-1623. French Protestant statesman.

Morris, George P. 1802–1864. American journalist and poet. *Woodman, Spare That Tree*.

Morris, Gouverneur. 1752–1816. American statesman.

Morris, Robert. 1734–1806. Am. statesman and financier.

Morris, William. 1834–.... English poet.

Morse, Samuel Finley Breese. 1791–1872. Am. inventor of the magnetic telegraph; graduate of Yale College; studied painting in England, returning to America in 1832; constructed small recording electric telegraph in 1835; finally obtained aid from Congress in 1848, and constructed a line between Washington and Baltimore in 1844.

Mortimer, Roger, Earl of March. 1287?–1330. Favorite of Isabella of England; executed.

Morton, James Douglas, Earl of. 1530-1581. Regent of Scotland. Executed as accessory to Darnley's murder.

Morton (or **Moreton**), John. 1410–1500. English prelate.

Morton, Oliver Perry. 1823–1877. American statesman.

Moscheles, Ignaz. 1794–1870. Hungarian pianist.

Moses. 1570–1450. Hebrew law-giver. Led the Israelites out of Egypt.

Motley, John Lothrop. 1814–1877. American diplomatist and historian. *The Rise of the Dutch Republic; History of the United Netherlands*.

Mott, Lucretia (*née* Coffin). 1793–1880. Am. social reformer.

Mott, Valentine. 1785–1865. American surgeon.

Moultrie, William. 1731–1805. Am. Revolutionary general.

Mozart, Johann Chrysostomus Wolfgang Amadeus. 1656–1791. German composer. Composed short pieces at the age of six, and at seven gave concerts in Paris and London. Distinguished for the universality of his genius. *Don Giovanni; The Magic Flute; The Marriage of Figaro; Requiem*.

Muhlenberg, Henry Melchior. 1711–1787. Founder of the German Lutheran church in America.

Muhlenberg, John Peter Gabriel. 1746–1807. Am. general.

Mukhtar Pasha, Ghazi Ahmed. 1837–.... Turkish general and statesman.

Muller, Friedrich Maximilian (*Max Müller*). 1823–.... German scholar and writer in England. *Chips from a German Workshop*.

Mulock, Dinah Maria. See *Craik*.

Munchausen, Hieronymus Karl Friedrich von, Baron. 1720–1797. German soldier and romancist.

Munzer, Thomas. ....–1526. German Anabaptist fanatic.

Murat, Joachim. 1771–1815. Fr. marshal and king of Italy.

Murillo, Bartolomé Esteban. 1618–1682. Spanish painter. Excelled as a colorist, and regarded as the greatest of the Spanish school of painters. His virgin saints and beggar boys are famous.

Murray (or **Moray**), James Stuart, Earl of. 1533–1570. Regent of Scotland. Opponent of Mary Stuart. Assassinated.

Murray, Lindley. 1745–1826. American grammarian.

Musset, Louis Charles Alfred de. 1810–1857. French poet.

Nadir Shah. (Kouli Khan.) 1688–1747. King of Persia. Expelled the Afghans and dethroned the Shah; conquered part of India.

Nana-Sahib. 1824–.... Leader of Sepoy mutiny.

Napier, Sir Charles James. 1782–1853. Eng. general in India.

Napier, Sir Charles John. 1786–1860. British admiral.

Napier, John, Laird of Merchiston. 1550–1614. Scottish mathematician.

Napier, Sir William Francis Patrick. 1785–1860. British general and writer.

Napier of Magdala, Robert Cornelis Napier, Baron. 1810–1876. British general.

Napoleon. See *Bonaparte*.

Nash, Richard. *Beau Nash*. 1674–1761. English fop.

Naṣir-ed-Din. 1829–.... Shah of Persia.

Neander, Johann August Wilhelm. 1789–1850. German theologian and historian. *History of the Christian Religion*.

Nebuchadnezzar. ....–561 B.C. Chaldean king of Babylon. Conquered Jerusalem, Tyre and Egypt.

Necker, Jacques. 1732–1804. French statesman and financier. Father of Mme. de Staël.

Neilson, Adelaide. 1853–1881. American actress.

Nelson, Horatio, Viscount. 1758–1805. The greatest of Britain's naval commanders. Entered the navy at 13; post-captain, 1779; rear admiral, 1797, his promotion having been earned by his share in the victory of St. Vincent; lost his right arm in an unsuccessful attack on Teneriffe; won the battle of the Nile in 1798, for which he was raised to the peerage as Baron Nelson of the Nile, became separated from his wife, owing to an infatuation with Lady Hamilton which lasted until his death; created a viscount for the victory of the Baltic, where, being second in command, he disobeyed the orders directing him to retreat; fell at Trafalgar, where his fleet gained a decisive victory over the French and Spanish.

Nepos, Cornelius. Fl. 5 B.C. Roman historian.

Neri, Filippo de, Saint. *St. Philip Neri*. 1515–1595. Italian founder of the order of "Priests of the Oratory."

Nerva, Marcus Cocceius. 32–98. Roman emperor, 76–98.

Nesselrode, Charles Robert von, Count. 1780–1862. Russian diplomatist; minister of foreign affairs for forty years.

Nestorius. ....–440? Syrian prelate; patriarch of Constantinople, and founder of the Nestorian schism.

Newman, John Henry, Cardinal. 1801–1890. English theologian. Graduated at Oxford; founded an ascetic community in 1842, over which he presided for three years; a recognized leader of the High Church party until 1845, when he became a Catholic, appointed rector of Catholic University at Dublin 1854, and made a cardinal by Pope Leo XIII. in 1879. *A Grammar of Assent*.

Newton, Sir Isaac. 1642–1727. English philosopher and mathematician. The son of a farmer; graduated at Cambridge 1665, about which time he invented the "method of fluxions," and discovered the attraction of gravitation; discovered, in 1668, that light is not homogeneous, but consists of rays of different refrangibility; published his *Theory of Light and Color* in 1675, and his greatest work, *The Principia*, in 1687.

Ney, Michel, Duke of Echlingen and Prince of the Moskwa. 1796–1815. French marshal; the son of a cooper entered the army at 18 as a private, and was gradually promoted. Napoleon called him "the bravest of the brave," and his titles were conferred upon him for his victory at Echlingen in 1805, and his services at the battle of Borodino. Commanded the rear guard in the retreat from Moscow; defeated by Bernadotte, at Dennewitz, 1813; submitted to Louis XVIII. upon the abdication of Napoleon, against whom he was sent with an army in 1815, but united his army with that of his old commander; had five horses shot under him at Waterloo, where he fought with his usual valor; was captured soon after, and executed on a charge of treason.

Nicholas I. Pope, ruling from 858 to 867. II., 1059–1061. III., 1277–1280. IV., 1288–1292. V., 1447–1455.

Nicholas I. 1796–1855. Emperor of Russia; at war with Persia and Turkey; subdued Polish insurrection, 1831; engaged in Crimean war.

Nicholas. 1841–.... Prince of Montenegro.

Niebuhr, Barthold Georg. 1776–1831. German historian.

Nicot, Jean. 1530–1600. Fr. scholar; introduced tobacco.

Nightingale, Florence. 1820–.... English philanthropist. *Notes on Hospitals.*

Nilsson, Christine. (Mme. Rouzaud.) 1843–.... Swedish vocalist.

Noailles, Adrian M., Duke of. 1678–1766. French general.

Nordenskjold, Adolf Erik. 1832–.... Swedish explorer.

Nordhoff, Charles. 1830–.... Am. author and journalist.

North, Christopher. See *Wilson, John.*

North, Frederick, Lord. 1732–1792. English statesman.

Northcote, Sir Stafford Henry. 1818–1887. Eng. statesman.

Norton, Caroline Elizabeth Sarah (*née* Sheridan). 1808–1877. English authoress. *Stuart of Dunleith.*

Nostradamus. (Michel de Notredame.) 1503–1566. French astrologer. *Centuries.*

Nottingham, Heneage Finch, first Earl of. 1621–1682. English jurist and statesman.

Novalis. (Friedrich von Hardenberg.) 1772–1801. German author.

Novello, Vincent. 1771–1861. English composer.

Noyes, George Rapall. 1798–1868. American theologian.

Noyes, John Humphrey. 1811–1886. American communist.

OATES, Titus. 1620–1705. English informer; contriver of the celebrated "Popish Plot."

Oberlin, Jean Frédéric. 1740–1816. French-German reformer and philanthropist.

O'Brien, William Smith. 1803–1864. Irish political agitator. Leader of "Young Ireland" party; banished for treason.

O'Connell, Daniel. 1775–1847. Irish patriot and orator. Advocated Catholic emancipation, but opposed resort to arms; elected to Parliament in 1828, but not allowed to take his seat until 1829, when the bill for Catholic emancipation was passed; gave up his large law practice and gave his entire attention to public duties; began advocating the repeal of the union in 1840, and was convicted in 1844 on a charge of treason, but the sentence, one year's imprisonment and £2,000 fine, was reversed by the House of Lords.

O'Conor, Charles. 1804–1884. American lawyer.

Occam, William of. *The Invincible Doctor.* 1280?–1347. English theologian.

Odoacer. ....–493. Gothic king of Italy; executed.

O'Donnell, Leopold, Count of Lucena, Duke of Tetuan. 1809–1867. Spanish general and statesman.

Oehlenschlager, Adam Gottlob. 1779–1850. Danish poet.

Oersted, Hans Christian. 1777–1851. Danish natural philosopher; founder of the science of electro-magnetism.

Offenbach, Jacques. 1819–1880. German-French composer. *La Belle Hélène; Orphée aux Enfers; Bluebeard; La Grande Duchesse; La Jolie Parfumeuse,* etc.

Oglesby, Richard J. 1824–.... American statesman.

Oglethorpe, James Edward. 1698–1785. English general; colonized Georgia.

Oldcastle, Sir John, Lord Cobham. 1360–1407. English reformer; head of the Lollards; executed.

Oldfield, Anne. 1683–1730. English actress.

Oliphant, Margaret. 1818–....English novelist.

Ollendorff, Henri Godefroy. 1803–1865. German educator.

Ollivier, Olivier Émile. 1825–.... French statesman.

Omar I. 581–644. Arabian caliph. Conquered Jerusalem.

Omar Pasha. (Michael Lattas.) 1806–1871. Turkish commander in the Crimean war; born in Croatia.

O'Meara, Barry Edward. 1780–1836. Irish physician and author. *Napoleon in Exile.*

Opie, Mrs. Amelia. 1769–1853. English authoress.

Orange, William, Prince of. *The Silent.* 1553–1584. Founder of the Dutch republic; leader of the insurrection which broke out when it was attempted to introduce the Inquisition into the Netherlands. Assassinated.

Origen. 186?–253. Greek theologian and preacher. Endeavored to harmonize the teachings of Christ and Plato; opposed the theory of eternal punishment.

Orleans, Louis Philippe Joseph, Duc d'. 1747–1793. Took the popular side on the assembling of the States-General, renounced his titles and assumed the name of *Egalité* (Equality). Voted for the death of his cousin, Louis XVI. Condemned by the revolutionary tribunal, and executed. His son, Louis Philippe, afterward became king of France.

Orleans, Philippe, Duc d'. 1674–1723. Regent of France.

Orloff, Alexis, Count. 1787–1861. Russian general.

Ormond, James Butler, Duke of. 1610–1688. Irish statesman; put down the Irish rebellion.

Orsini, Felice. 1819–1858. Italian conspirator; leader in the attempted assassination of Napoleon III., in 1858; executed.

Oscar II. 1829–.... King of Sweden and Norway.

Osman I. 1259–1326. Founder of Ottoman dynasty.

Ossoli, Margaret Fuller, Marchioness. 1810–1850. American authoress.

Otho I. *The Great.* 912–973. Emperor of Germany. Christianized the Danes; deposed Pope John XII. II., 955–983. III., 980–1002. IV., 1174–1218.

Otho I. 1815–1867. King of Greece.

Otis, James. 1725–1783. Am. lawyer, orator and patriot. Opposed "writs of assistance"; leader of the popular party.

Otway, Thomas. 1651–1685. English dramatist.

Oudinot, Nicholas Charles. 1767–1847. French general.

Outram, Sir James. 1802–1863. English general in India.

Overbury, Sir Thomas. 1581–1613. English poet.

Ovid. (Publius Ovidius Naso.) B.C. 43–18 A.D. Roman poet.

Owen, Sir Rich'd. 1804–.... Eng. zoölogist and anat.

Owen, Robert. 1771–1858. English socialist; founder of the community of New Harmony.

Oxenstiern, Axel, Count. 1583–1654. Swedish statesman.

PADILLA, Don Juan Lopez de. ....–1521. Spanish patriot and general; executed.

Paganini, Niccolo. 1784–1840. Italian violinist.

Paine, Robert Treat. 1731–1814. Am. lawyer and statesman.

Paine, Thomas. 1737–1809. American political writer and free-thinker; born in England. *Common Sense; Rights of Man; The Age of Reason.*

Pakenham, Sir Edward. ....–1815. British general; fell at New Orleans.

Palestrina, Giovanni Pierluigi da. 1524?–1594. Italian composer of church music. *Mass of Pope Marcellus.*

Paley, William. 1743–1805. English theologian.

Palissy, Bernard. 1506–1589. Fr. potter and enameller.

Palladio, Andrea. 1518–1580. Italian architect.

Palmaroli, Pietro. ....–1828. Italian painter.

Palmerston, Henry John Temple, Viscount. 1784–1865. English statesman; minister of foreign affairs and prime minister.

Paoli, Pasquale di. 1726–1807. Corsican general.

Papin, Denis. 1647–1712. French physician. (Digester.)

Papineau, Louis Joseph. 1789–1871. Canadian politician.

Paracelsus, Philippus Aureolus Theophrastus Bombastus von Hohenheim. 1493-1541. Swiss alchemist and empiric.

Parepa-Rosa, Euphrosyne. 1836–1874. Scottish vocalist.

Paris, Louis Albert Philippe d'Orleans, Comte de. 1838–.... French prince; grandson of Louis Philippe.

Park, Mungo. 1771–1805. Scottish traveller and explorer. *Travels in the Interior of Africa.*

Parker, Matthew. 1504–1575. English prelate.

Parker, Theodore. 1810–1860. Am. rationalistic theologian.

Parkman, Francis. 1823–.... American historian.

Parnell, Chas. Stewart. 1843–1891. Irish agitator; leader of the Irish parliamentary party.

Parr, Catherine. 1509–1548. Surviving queen of Henry VIII.

Parrhasius. Fl. 400 B.C. Greek painter.

Parrott, Robert Parker. 1804–1877. American inventor.

Parry, Sir William Edmund. 1790–1855. English Arctic explorer; discovered Barrow's Strait.

Parsons, Theophilus. 1750–1813; 1797–1882. Am. jurists.

Parton, James. 1822–1891. American historian.

Pascal, Blaise. 1623–1662. French philosopher and mathematician. At the age of twelve, he had acquired, without books, a knowledge of geometry, and established the theory of atmospheric pressure, 1648.

Pasteur, Louis. 1822–.... Fr. chemist and pathologist.

Patrick, Saint. 372?–460? Apostle of Ireland.

Patti, Adelina Maria Clorinda, Marquise de Caux. 1843–.... Operatic singer, of Italian descent; born in Madrid.

Paul, Saint, of Tarsus. *Saul.* 10?–66? Apostle.

Paul I. Pope from 757 to 767. II., 1464–1471. III. (Alessandro Farnese), 1534–1549; excommunicated Henry VIII.; called Council of Trent. IV., 1555–1559. V., 1605–1621.

Paul I. 1754–1801. Emperor of Russia; assassinated.

Paul Veronese. (Paolo Cagliari.) 1530?–1588. It. painter.

Pausanias. Fl. 479 B.C. Spartan general.

Paxton, Sir Joseph. 1803–1865. English architect.

Payne, John Howard. 1792–1852. American dramatist and poet. *Home, Sweet Home.*

Peabody, George. 1795–1869. American philanthropist. Acquired great wealth as a banker in London; expended over five millions in benevolent enterprises.

Peale, Rembrandt. 1778–1860. American painter.

Pedro (de Alcantara) **I.** 1798–1834. Emperor of Brazil; king of Portugal as Pedro IV. II., 1825-1891. Deposed 1889.

Peel, Sir Robert. *Orange Peel.* 1788–1850. English statesman and prime minister; repealed the Corn Laws.

Peixoto, Floriano. President of Brazil. Elected 1891.

Pelham, Henry. 1684–1754. English statesman.

Pellegrini, Carlos. Pres. Agentine Rep. Elected 1890.

Pellico, Silvio. 1789–1854. Italian poet and patriot.

Pemberton, John Clifford. 1814–1881. Confederate general.

Penn, William. 1644–1718. English Quaker; statesman, courtier, author and philanthropist; founder of Pennsylvania. Son of Sir William Penn, an English admiral.

Pepin. *The Short.* 714?–768. King of France. Son of Charles Martel and father of Charlemagne. Mayor of the palace under Childeric III.; usurped the throne in 752.

Pepys, Samuel. 1632–1703. English author and scholar; secretary of the admiralty. *Diary; Memories of the Navy.*

Pepperell, Sir William. 1696–1759. Am. colonial general.

Perceval, Spencer. 1762–1812. Eng. statesman; assassinated.

Percival, James Gates. 1795–1856. American poet.

Percy, Thomas. 1728–1811. English prelate and author.

Pereire, Emile (1800–1875) and Isaac (1806–....). French financiers. Founded the "Credit Mobilier."

Pergolesi, Giovanni Battista. 1710?–1737? Italian composer.

Pericles. 495?–429 B.C. Athenian orator, statesman and general. Became the leader of the democratic party and the first man in Athens; greatly increased Athenian influence; erected many noble public works, including the Parthenon.

Perrault, Claude. 1613–1688. French architect.

Perry, Matthew Calbraith. 1794–1858. American commodore; commanded expedition to Japan.

Perry, Oliver Hazard. 1785–1819. American commodore; defeated the British on Lake Erie.

Persius Flaccus, Aulus. 34–62. Roman satirist.

Perugino, Pietro. (Vannucci.) 1446–1524. Italian painter.

Pestalozzi, Johann Heinrich. 1745–1827. Swiss educationist.

Peter, Saint. ....–66. Apostle.

Peter I. *The Great.* 1672–1725. Czar of Russia. Organized an army and entered it as a private; studied practical seamanship, and formed a navy; travelled *incognito* in Western Europe; worked as a ship-carpenter in Holland; founded schools and effected a number of reforms; defeated Charles XII. of Sweden, at Pultowa, 1709; founded St. Petersburg. His second wife, Catherine, was a prisoner of war, of obscure parentage. The crown prince, Alexis, opposing the czar's policy, was forced to renounce the succession and is said to have been poisoned by his father.

Peter the Hermit. 1050?–1115. Preacher of first crusade.

Peterborough, Charles Mordaunt, Earl of. 1658–1735. English general; able but eccentric. Captured Barcelona and Valencia.

Petion, Alexandre. 1770–1818. First president of Hayti.

Petrarch. (Francesco Petrarca.) 1304–1374. Italian poet and scholar. Enamored of Laura de Sade, whose name has been rendered immortal by over three hundred sonnets and fifty canzoni addressed to her.

Pettie, John. 1839–.... Scottish artist.

Phelps, Elizabeth Stuart. 1815–1852. American authoress. *The Sunny Side.*

Phelps, Elizabeth Stuart. 1844–.... Daughter of preceding American authoress. *The Gates Ajar.*

Phidias. 490–432 B.C. The greatest of Greek sculptors. His Zeus at Olympia is counted among the wonders of the world.

Philidor. Assumed name of a French family (Danican) of musicians. François André Danican (1726-1795) was a celebrated chess player.

Philip. (Pometacom.) *King Philip.* ....–1676. New England Indian chief; sachem of Pokanoket. (King Philip's war.)

Philip II. 382–336 B.C. King of Macedonia; father of Alexander the Great. Assassinated.

Philip II. (Augustus.) 1165–1223. King of France. Annexed Normandy, Anjou and Lorraine; won the battle of Bouvines. III., *The Bold*, 1245–1285; ascended the throne in 1270. IV., *The Fair*, 1268–1314; reduced the power of the feudal nobles; imprisoned Pope Boniface III. and caused him to remove his seat to Avignon; suppressed the order of Knights Templars. VI. (of Valois), 1293–1350.

Philip II. 1527–1598. King of Spain. Son of Charles V. Provoked insurrection in the Netherlands by his attempt to introduce the Spanish Inquisition; married, on the death of Mary Tudor, his second wife, Isabella of France, the betrothed of his son, Don Carlos; equipped the "Invincible Armada" for the conquest of England. III., 1578–1621. IV., 1605–1665. V., 1683–1746; first of the House of Bourbon.

Philip. *The Good.* 1396–1467. Duke of Burgundy.

Phillips, Adelaide. 1833–.... English-American vocalist.

Phillips, Wendell. 1811–1884. American orator and abolitionist. *Speech in Faneuil Hall*, 1836.

Phips (or **Phipps**), Sir William. 1651–1695. Colonial governor of Massachusetts. Captured Port Royal.

Phocion. 402?–317 B.C. Athenian general and statesman.

Piccolomini, Ottavio. 1599–1656. Austrian general; conspirator against Wallenstein. Gained great distinction in the Thirty Years' war; led Spanish army in Flanders.

Pickering, Timothy. 1745–1829. American statesman.

Pierce, Franklin. 1804–1869. Fourteenth president of the United States. Born in New Hampshire; Congress, 1832-7; senator, 1837-42; brigadier-general in Mexican war; elected president on the Democratic ticket, in 1852, holding that office from 1853-7; opposed coercion of the South in 1863.

Pilate, Pontius. ....–38. Roman governor of Palestine.

Pinckney, Charles Cotesworth. 1746–1825. American statesman and soldier; leader of the Federalists.

Pindar. 520?–440? B.C. Greek lyric poet.

Pinkney, William. 1764–1822. Am. lawyer and orator.

Pisano, Andrea. 1270–1345. Italian sculptor and architect.

Pisano, Nicola. 1200?–1278? Italian sculptor.

Pisistratus. 612–527 B.C. Tyrant of Athens.

Pitcairn, Maj. John. ....–1775. English officer; fell at Bunker Hill.

Pitman, Benn. 1822–.... English phonographer.

Pitman, Isaac. 1813–.... Eng. inventor of phonography.

Pitt, William. 1759–1806. English statesman and orator. Son of the Earl of Chatham. Graduated at Cambridge; admitted to the bar, 1780; entered Parliament, 1781; chancellor of the exchecquer, 1782; first lord of the treasury and prime minister, 1783; head of the great coalition against Bonaparte.

Pius I. Pope, 142–157. II., 1458–1464. III., 1503; died same year IV. (Giovanni Angelo de'Medici), 1559-1565; convoked Council of Trent. V., 1566-1572. VI., 1775-1799. VII., 1800-1823; taken from Rome in 1809 by Napoleon, and detained at Genoa and Fontainebleau. VIII., 1829-1830. IX. (Giovanni Maria Mastai-Ferretti), born 1792; chosen to the pontificate, 1846; died, 1878. During his incumbency the dogmas of the Immaculate Conception and of Papal Infallibility were promulgated; temporal power overthrown, 1870, and the Papal States annexed to Italy.

Pizarro, Francisco. 1475?–1541? Sp. conqueror of Peru.

Plantagenet. Dynasty of English kings, 1154–1485.

Plato. 428–347 B.C. Greek philosopher; disciple of Socrates. Held that the human soul has always existed, and that an idea is an eternal thought of the divine mind.

Pleasonton, Alfred. 1824–.... American general.

Pliny. *The Elder.* 23–79. Roman naturalist; perished at an eruption of Vesuvius. *Natural History.*

Pliny. *The Younger.* 62?–116. Roman orator and author.

Plotinus. 205–270. Greek Neo-Platonic philosopher.

Plunkett, William Conyngham, Lord. 1764–1854. Irish jurist.

Plutarch. 50?–120? Greek biographer and philosopher. *Parallel Lives.*

Pocahontas. 1595?–1617. Daughter of Powhatan. Saved the life of Capt. John Smith, an English explorer; was converted to Christianity, and married an English gentleman named Rolfe.

Poe, Edgar Allan. 1809–1849. American author; extremely dissipated. *The Raven; The Fall of the House of Usher; Tales of the Grotesque and Arabesque.*

Polk, James Knox. 1795–1849. American statesman; eleventh president. Born in North Carolina; removed to Tennessee; admitted to the bar; Congress, 1825; speaker for two terms; governor of Tennessee, 1839–41; elected president on the Democratic ticket, holding that office from 1845-9. During his term Texas was formally annexed to the Union, and the Mexican war prosecuted.

Polk, Leonidas. 1806–1864. Episcopal bishop and Confederate general; prominent at Shiloh and Stone River.

Pollok, Robert. 1798?–1827. Scot. poet. *Course of Time.*

Polo, Marco. 1252?–1324? Venetian traveller.

Polybius. 206?–124 B.C. Greek historian.

Polycarp, Saint. 80?–169? Bishop of Smyrna; martyr.

Pompadour, Jeanne Antoinette Poisson, Marquise de. 1721–1764. Mistress of Louis XV. of France; assumed complete control of public affairs.

Pompey. *The Great.* 106–48 B.C. Roman general and triumvir; conquered Suetonius and Mithridates; became leader of the aristocracy and opponent of Cæsar; defeated at Pharsalia.

Ponce de Leon, Juan. 1460–1521. Spanish discoverer of Florida.

Poniatowski, Jozef Antoni, Prince. 1762–1813. Polish commander; created field-marshal by Napoleon.

Pontiac. 1712?–1769. Chief of the Ottawas; formed coalition of Indians against the whites, and attempted to capture Detroit.

Pope, Alexander. 1688–1744. English poet. The son of a linen-draper; educated by a Catholic priest. Macaulay calls him "a great master of invective and sarcasm." *Messiah; Pastorals; Essay on Man; Essay on Criticism; The Dunciad; Rape of the Lock,* and translations of Homer.

Porter, David. 1780–1843. American commodore.

Porter, David Dixon. 1813–1891. Son of preceding. American admiral; reduced Fort Fisher, 1865.

Porter, Fitz John. 1823–.... Nephew of David Porter. American general.

Porter, Jane. 1776–1850. Eng. novelist. *Thaddeus of Warsaw.*

Porter, Noah. 1811–.... American educator.

Powers, Hiram. 1805–1873. American sculptor.

Powhatan. 1550?–1618. Indian chieftain in Virginia.

Praxiteles. Fl. 360 B.C. Greek sculptor.

Preble, Edward. 1761–1807. American naval officer.

Prentice, George Denison. 1802–1870. American poet and journalist.

Prentiss, Sergeant Smith. 1808–1850. American orator and lawyer.

Prescott, William Hickling. 1796–1859. American historian. *Ferdinand and Isabella.*

Price, Sterling. ....1867. Confederate general.

Prim, Juan, Count de Reus and Marquis de los Castillejos. 1814–1870. Spanish general and statesman: assassinated.

Prior, Matthew. 1664–1721. English poet and diplomatist.

Probus, Marcus Aurelius. 232–282. Roman emperor.

Procter, Adelaide Anne. 1825–1864. English poetess.

Procter, Bryan Waller. *Barry Cornwall.* 1790–1874. English poet. *The Sea.*

Prout, Father. (Francis Mahony.) 1805–1866. Irish journalist and writer.

Prynne, William. 1600–1669. English Puritan writer.

Ptolemy I. *Soter.* 397?–283 B.C. King of Egypt. **II.,** *Philadelphus,* 309–247 B.C.

Ptolemy. (Claudius Ptolemæus.) Fl. 2d century. Greek astronomer and geographer. Believed the earth to be at rest in the centre of the universe. the heavenly bodies moving around it

Pugin, Augustus N. W. 1811–1852. English architect.

Pulaski, Casimir, Count. 1747–1779. Polish patriot; general in the American Revolutionary army. Fell at the siege of Savannah.

Putnam, Israel. 1718–1790. American Revolutionary general. Conspicuous at the battle of Bunker Hill.

Pym, John. 1584–1643. English republican statesman and orator; popular leader in Parliament.

Pyrrho. 360?–270? B.C. Greek skeptic and philosopher.

Pyrrhus. 318?–272 B.C. King of Epirus and one of the greatest of ancient generals. Defeated the Romans and conquered Macedonia

Pythagoras. 600?–510? B.C. Greek philosopher. Taught the doctrine of transmigration of souls

QUACKENBOS, George Payn. 1826–1881. American educationist.

Quarles, Francis. 1592–1644. English poet. *Emblems.*

Queensberry, William Douglas, Duke of. 1724–1810. Scottish profligate.

Quin, James. 1693–1766. English actor, famous as *Falstaff.*

Quincy, Josiah. 1744–1775. American orator and patriot.

Quincy, Josiah. 1772–1864. Son of preceding. American statesman and scholar.

Quintilianus, Marcus Fabius. 50?–118? Roman rhetorician.

RABELAIS, François. 1495?–1553. French scholar and satirist. Joined the Franciscans, but left the order; afterward studied medicine His great work, *The Pleasant Story of the Giant Gargantua and his Son Pantagruel,* is a satire upon the different branches of society of his age, more particularly the monastic orders

Rachel. (Elizabeth Rachel Félix.) 1821–1858. French actress, born in Switzerland; daughter of a Jewish peddler.

Racine, Jean. 1639–1699. French dramatist. *Les Plaideurs; Britannicus; Berenice; Bajazet; Iphigénie; Phèdre; Esther; Athalie.*

Racine, Louis. 1692–1763. French poet. Son of J. R.

Radcliffe, Ann. 1764–1823. English novelist.

Radcliffe, John. 1650–1714. English physician.

Raglan, James Henry Fitzroy Somerset, Lord. 1788–1855. English general. Commanded British army in Crimean war.

Raleigh, Sir Walter. 1552–1618. English courtier, statesman, navigator and author. A favorite of Queen Elizabeth; executed by James I

Rameau, Jean Philippe. 1683–1764. French composer.

Ramsay, Allan. 1685–1758. Scottish poet.

Ranavalona III. Queen of Madagascar Suc. 1883.

Randolph, John (of Roanoke). 1773–1833. American politician and orator. Entered Congress 1799; advocated extension of slavery; opposed Missouri Compromise; Senate, 1824; soon after fought a duel with Henry Clay; minister to Russia, 1830.

Randolph, Peyton. 1723–1775. President of first American Congress.

Raphael. (Raffaelle Sanzio, or Santi d' Urbino.) 1483–1520. Italian painter. *Sistine Madonna; Adoration of the Magi; Marriage of the Virgin; Transfiguration,* etc.

Ravaillac, François. 1578–1610. French fanatic; assassin of Henry IV.

Read, Thomas Buchanan. 1822–1872. American poet and artist. *The House by the Sea; The Wagoner of the Alleghanies.*

Reade, Charles. 1814–1884 English novelist. *Peg Woffington; Hard Cash; White Lies; A Terrible Temptation; Griffith Gaunt.*

Reaumur, Rene Antoine Ferchault de. 1683–1757. French naturalist and inventor of a thermometer.

Recamier, Jeanne F. J. A. B. 1777–1849. French lady noted for beauty and accomplishments.

Red Jacket. 1760–1830. Eloquent Seneca Indian chief.

Reeves, Sims. 1821–.... English oratorio singer.

Regulus, Marcus Atilius. ....–250 B.C. Roman general and statesman. Captured by the Carthaginians and sent to Rome to secure peace, but advised against it; returning to Carthage as he had promised, he was tortured and put to death.

Reid, Capt. Mayne. 1818–1883. Irish-American novelist.

Rembrandt van Ryn, Paul. 1607–1669. Dutch painter.

Remusat, Charles François Marie, Count. 1797–1875. French statesman and philosopher. *Essays on Philosophy.*

Renan, Joseph Ernest. 1823–.... French philologist and writer. *Life of Jesus.*

Retz, Jean François Paul de Gondi, Cardinal. 1614–1679. French prelate; a leader of the Frondeurs. *Memoirs.*

Reuter, Fritz. 1810–1874. Low-German poet and novelist.

Reuter, Julius. 1815–.... German originator of Reuter's Telegraphic Agency.

Revere, Paul. 1735–1818. American engraver and Revolutionary patriot. Carried the news of Gage's impending attack to Concord.

Reynolds, John Fulton. 1820–1863. American general.

Reynolds, Sir Joshua. 1723–1792. English painter.

Ricardo, David. 1772–1823. English political economist.

Richard I. *Cœur de Lion.* 1157–1199. King of England. Led a large army into Palestine, where he exhibited great personal prowess, conquered Acre and defeated Saladin. II., 1366–1400. III., 1452–1485, last of the Plantagenets.

Richardson, Samuel. 1689–1761. English novelist.

Richelieu, Armand Jean du Plessis, Cardinal. 1585–1642. French prelate and statesman. Made cardinal, 1622; prime minister, 1624; curbed the nobility; subdued the Calvinists; restored balance of power in Europe; granted religious toleration to the Protestants; secured exile of his foe, Marie de Medici, the king's mother, 1631; aided German Protestants against Austria; founded French Academy (1635); added Alsace, Lorraine, and Roussillon to France.

Richter, Johann Paul Friedrich. *Jean Paul.* 1763–1825. German author. Among his works, which are distinguished for quaintness and originality, may be named *Greenland Lawsuits; Hesperus; The Invisible Lodge; Parson in Jubilee; Titan.*

Ridley, Nicholas. 1500?–1555. English bishop and reformer. Burned at the stake.

Rienzi, Nicola Gabrini. 1313?–1354. Roman orator; made famous by his attempt to restore the Roman Republic.

Ripon, George Frederick Samuel Robinson, Earl de Grey and Marquis of. 1827–.... English statesman.

Ristori, Adelaide, Marchioness del Grillo. 1821–.... Italian actress.

Rittenhouse, David. 1732–1796. American astronomer.

Riviere, Briton. 1840–.... English animal painter.

Rizzio, David. 1540–1566. Italian musician; favorite and secretary of Mary Stuart; assassinated.

Robert. *Robert the Devil.* ....–1035. Duke of Normandy; father of William the Conqueror.

Robert I. *Robert Bruce.* 1274–1329. King of Scotland. II., 1316–1390; first of the Stuarts.

Robert, Louis Léopold. 1794–1835. French painter.

Robertson, Frederick William. 1816–1853. Eng. divine.

Robespierre, Maximilien Joseph Marie Isidore. 1758–1794. French Jacobin revolutionist; ruler during the Reign of Terror; guillotined.

Robin Hood. Fl. 12th century. English outlaw.

Rob Roy. (Robert McGregor.) 1660?–1735? Scottish freebooter.

Rochambeau, Jean Baptiste Donatien de Vimeur de, Count. 1725–1807. French marshal; general in America in 1781.

Rochefort, Victor Henri de Rochefort-Luçay, Comte. 1830–.... French editor and communist.

Rochefoucauld, François, Duc de la. 1613–1680. French wit and author. *Maxims.*

Rochejaquelin, Henri de la, Comte. 1772–1794. French royalist; leader of the Vendeans.

Rodney, George Bridges, Lord. 1718–1792. Brit. admiral.

Roebling, John Augustus. 1806–1869. American engineer.

Rogers, John. 1829–.... American sculptor.

Rogers, John. 1500?–1555. English divine; burned at Smithfield.

Rogers, Samuel. 1763–1855. English poet.

Roland, Marie Jeanne Philipon, Mme. 1754–1793. French Girondist and writer; guillotined. *Memoirs.*

Rollin, Charles. 1661–1741. Fr. historian. *Ancient History.*

Rollo, or **Hrolf.** 860?–930? Norwegian viking. First duke of Normandy.

Romanoff, Michael Feodorovitch. 1598?–1645. Founder of the Russian dynasty.

Romulus. Fl. 750 B.C. Founder of Rome.

Romilly, Sir Samuel. 1757–1818. English statesman.

Rooke, Sir George. 1650–1709. British admiral.

Rosa, Salvator. 1615–1673. Italian painter.

Roscius, Quintus. 61 B.C. ....Roman actor.

Rosecrans, William Starke. 1817–.... Am. general.

Ross, Sir John. 1777–1856. British admiral and Arctic navigator.

Ross, Sir James Clark. 1800–1862. Nephew of preceding. British Arctic navigator.

Rossetti, Dante Gabriel. 1828–1882. English painter and poet. *House of Life.*

Rossini, Gioacchimo. 1792–1868. Italian composer. *William Tell; The Barber of Seville.*

Rothschild, Mayer Anselm. 1743–1812. Jewish banker at Frankfort; founder of the house of Rothschild.

Rouget de l'Isle, Claude Joseph. 1760–1836. French poet and musician. *Marseillaise.*

Rouher, Eugene. 1814–1884. French politician.

Rousseau, Jean Baptiste. 1670–1741. French lyric poet.

Rousseau, Jean Jacques. 1712–1778. French philosopher and writer. Born in Geneva; apprenticed to an engraver, but wandered about, and was successively a servant, a clerk, and a music teacher; went to Paris 1745, and met Diderot and Grimme; formed a connection with Thérèse le Vasseur, an ignorant woman, whom he afterward married. In 1760 appeared *Julie, or The New Heloïse;* in 1762, *The Social Contract.* His *Emile, or Education*, was burned at Geneva, and he was compelled to take refuge in England. His *Confessions* are an autobiography.

Rubens, Peter Paul. 1587–1640. Flemish painter.

Rubinstein, Anton. 1830–.... Rus. composer and pianist.

Ruckert, Friedrich. 1789–1866. Ger. orientalist and poet.

Rudolph I. (of Hapsburg). 1218–1291. Emperor of Germany. Founder of the Austrian empire. II., 1552-1612.

Rumford, Benjamin Thompson, Count. 1753–1814. American natural philosopher in France.

Rupert, Prince. (Prince Robert of Bavaria.) 1619–1682. German warrior.

Ruskin, John. 1819–.... English writer on art.

Russell, John, Earl. 1792–1878. English statesman.

Russell, William, Lord. 1639–1683. English patriot. Beheaded on a charge of complicity in the "Rye House Plot."

Rutledge, John. 1739–1800. American statesman and jurist.

Ruyter, Michael Adrianzoon de. 1607–1675. Dutch admiral.

SACKVILLE, George, Viscount. *Lord George Germain.* 1716-1785. English statesman and general.

Sadlier, Mary Anne, Mrs. 1820–.... Am. authoress.

Saint Clair, Arthur. 1734–1818. American general.

Sainte-Beuve, Charles Augustin. 1804–1869. French poet and critic.

Saint-Pierre, Jacques Henri Bernardin de. 1737–1814. Fr. author. *Paul et Virginie.*

Saint Simon, Claude Henri de, Count. 1760–1825. French socialist.

Sala, George Augustus Henri. 1828–.... Eng. littérateur.

Saladin. 1137–1193. Sultan of Egypt and Syria. Opposed the Crusaders. Defeated the Christians at Tiberias.

Sale, George. 1680–1736. English orientalist.

Salisbury, Robert Arthur Talbot Gascoyne Cecil, Marquis of. 1830–.... English premier.

Sallust. (Caius Sallustius Crispus.) 86–34 B.C. Rom. historian.

Saltonstall, Sir Richard. 1586–1658? Puritan in Massachusetts colony.

Salvini, Tommaso. 1833–.... Italian actor.

Samuel. 1170–1060 B.C. Last of the Israelite judges.

Sand, George. See *Dudevant.*

Sandeau, Leonard Sylvain Jules. 1811–1883. Fr. novelist.

Santa Anna, Antonio Lopez de. 1798–1876. Mexican general and statesman.

Sappho. Fl. 600 B.C. Greek lyric poetess.

Sardanapalus. Fl. 900 B.C. King of Assyria.

Sardou, Victorien. 1831–.... French dramatist.

Saul. ....–1055 B.C. First king of Israel.

Savage, Richard. 1698–1743. Eng. poet. *The Wanderer.*

Savonarola, Girolamo. 1452–1598. Italian religious reformer.

Saxe, Hermann Maurice, Count of. 1696–1750. Marshal of France; native of Saxony. Captured Prague 1741.

Saxe, John Godfrey. 1816–1887. American humorous poet.

Say, Jean Baptiste Leon. 1816–.... French financier. Member of the Academie Francaise.

Schelling, Friedrich Wilhelm Joseph von. 1775–1854. German philosopher.

Schenck, Gen'l Rob't C. 1809–1890. Am. statesman.

Schiller, Johann Christoph Friedrich von. 1759–1805. The most popular of German poets. Studied medicine and law, but could not resist his inclination towards literature. His drama, *The Robbers*, appeared in 1777; *Thirty Years' War*, 1791; *Wallenstein*, the work of many years, 1799. *The Maid of Orleans*, *Mary Stuart* and *William Tell* are among his best known dramas, and *The Song of the Bell* is considered the best of his minor poems. He enjoyed the friendship of Goethe.

Schlegel, August Wilhelm von. 1767–1845. German poet, critic and philologist. *Lectures on Dramatic Literature.*

Schlegel, Karl Wilhelm Friedrich von. Brother of preceding. 1772–1829. German philosopher and scholar. *Lectures on the Philosophy of History.*

Schliemann, Heinrich. 1822–1890. German traveller.

Schoeffer, Peter. 1430–1500. One of the inventors of printing; partner of Johann Faust.

Schefield, John McAllister. 1831–.... Am. general.

Schomberg, Friedrich A. H., Duke of. 1616?–1690. Protestant general. Born at Heidelberg; served in Swedish army during the Thirty Years' war; afterward marshal of France; entered the service of the Prince of Orange, and fell at the battle of the Boyne.

Schopenhauer, Arthur. 1788–1860. German pessimist philosopher. *The World as Will.*

Schott, Andreas. 1552–1629. Dutch Jesuit scholar.

Schubert, Franz. 1797–1828. German composer.

Schumann, Robert. 1810–1856. German composer.

Schurz, Carl. 1829–.... German-American statesman.

Schuvaloff, Peter, Count. 1828–.... Russian diplomatist.

Schuyler, Philip. 1733–1804. Am. general and patriot.

Schwanthaler, Ludwig Michael. 1802–1848. Ger. sculptor.

Schwarz, Berthold. Fl. 14th century. German monk and alchemist; reputed inventor of gunpowder.

Schweinfurth, Georg August. 1836–.... Ger. traveller.

Scipio Africanus Major, Publius Cornelius. 235 B.C.–184? Roman general; invaded Africa and defeated Hannibal.

Scipio Æmilianus Africanus Minor, Publius Cornelius. 185?–129 B.C. Roman general; captured and destroyed Carthage.

Scott, Sir Walter. 1771–1832. Scottish novelist and poet.

Scott, Winfield. 1786–1866. American general.

Sebastian, Saint. 255?–288. Roman soldier and martyr.

Sebastian, Dom. 1554–1578. King of Portugal and warrior; invaded Morocco, but was defeated and slain.

Secchi, Pietro Angelo. 1818–1878. Italian astronomer.

Sedgwick, Catherine Maria. Daughter of T. S. S. 1789–1867. American authoress.

Sedgwick, John. 1813–1864. American general.

Sedgwick, Theodore. 1746–1813. American jurist.

Seid Abdul Ahud. 1860–.... Amir of Bokhara.

Selkirk, Alexander. 1676?–1723. Scottish sailor whose adventures suggested the story of *Robinson Crusoe.*

Semiramis. Fl. 1250 B.C. Assyrian queen. Built Babylon, and greatly increased her dominions; invaded India, but was defeated.

Semmes, Raphael. 1809–1877. Confederate naval officer.

Seneca, Lucius Annæus. 5?–65. Roman statesman, moralist and Stoic philosopher.

Sennacherib. Fl. 700 B.C. Assyrian king.

Sergius I. Pope from 687–701. **II.,** 844–847. **III.,** 904–913. **IV.,** 1009–1012.

Servetus, Michael. 1509–1553. Spanish theologian. Burned at the stake. *On the Errors of the Trinity.*

Sesostris. (Rameses.) Fl. 1400 B.C. King of Egypt.

Severus, Alexander. 205–235. Roman emperor.

Severus, Lucius Septimius. 146–211. Roman emperor.

Sevigne, Marie de Rabutin-Chantal, Marquise de. 1627–1696. French lady celebrated for her beauty and accomplishments.

Seward, William Henry. 1801–1872. American statesman. Secretary of state 1861–9.

Seymour, Horatio. 1811–1886. American statesman. Elected governor of New York 1852, and re-elected 1862; opposed the administration's war policy, Democratic nominee for the presidency in 1868.

Sforza, Ludovico. *Il Moro.* 1451–1510. Italian general.

Shaftesbury, Anthony Ashley Cooper, first Earl of. 1621–1683. English statesman.

Shaftesbury, Anthony Ashley Cooper, third Earl of. 1671–1713. English philanthropist, author and freethinker.

Shaftesbury, Anthony Ashley Cooper, seventh Earl of. 1801–1885. English philanthropist.

Shakspere, Shakspeare, or Shakespeare, William. 1564–1616. The greatest English dramatist. Born at Stratford-on-Avon; married Anne Hathaway 1582; went to London about 1586 and became an actor and playwright; acquired a competence and retired to his native town about 1610. *Venus and Adonis* and *The Rape of Lucrece*, the only works published under his own hand, appeared 1593–4. The first edition of his collected works appeared in 1623. *Hamlet; Lear; Macbeth; Othello; The Tempest; Midsummer Night's Dream*, etc., etc.

Shaw, Henry W. *Josh Billings.* 1818–1885. Am. humorist.

Sheil, Richard Lalor. 1793–1851. Irish orator.

Shelley, Percy Bysshe. 1792–1822. English poet. Expelled from Oxford, at the age of sixteen, for writing a treatise on the necessity of atheism; married the daughter of a retired innkeeper against his father's will; became reconciled to his father, and eloped with Miss Westbrook, whom he married at Gretna Green; separated from her by mutual consent, and, hearing of his first wife's suicide, married Mary Godwin, with whom he was travelling on the continent; demanded at law the custody of the two children by his first marriage, but the guardianship was granted to their maternal grandfather, on the ground of the father's atheism; removed to Italy, where he was accidentally drowned. *Adonais, The Cenci; Prometheus; Revolt of Islam; Alastor; The Witch of Atlas. The Cloud, Ode to the Skylark* and *The Sensitive Plant* are among the most exquisite of his shorter poems.

Sheppard, Jack. ....–1724. English burglar; hanged.

Sheridan, Philip Henry. 1831–1888. American general. Victorious at Winchester, Cedar Creek and Five Forks. Made lieutenant-general of the U. S. army 1869, and promoted to the chief command on the retirement of General Sherman, 1883.

Sheridan, Richard Brinsley. 1751–1816. Irish orator and dramatist. *The Rivals; The School for Scandal; The Duenna.*

Sherman, John. 1823–.... American statesman. Secretary of the treasury, 1877–81; resumed specie payments.

Sherman, Roger. 1721–1793. American statesman.

Sherman, William Tecumseh. 1820–1891. Brother of John Sherman. American general. Made the celebrated "March to the Sea." Became general of the army in 1869, retiring in 1883.

Sickingen, Franz von. 1481–1523. German Protestant general.

Siddons, Sarah (*née* Kemble). 1755–1831. English actress.

Sidney, Algernon. 1622–1683. English republican; executed on false charge of complicity in "Rye House Plot."

Sidney, Sir Philip. 1554–1586. English soldier and poet.

Siemens, Ernst Werner. 1816–.... German inventor.

Siemens, Charles William. 1823–1883. Brother of preceding. German inventor.

Sigismund. 1368–1437. German emperor and king of Hungary.

Sigismund I. 1466–1548. King of Poland. **II.**, 1518–1572.

Sigourney, Mrs. Lydia Howard Huntley. 1791–1865. American poetess. *Moral Pieces in Prose and Verse.*

Silliman, Benjamin. 1779–1864. American naturalist.

Simeon Stylites. 390?–459. Syrian ascetic; lived for forty-six years on the tops of pillars.

Simeoni, Giovanni. 1816–1892. Prefect of Propaganda.

Simon, Jules. 1814–.... French statesman.

Sixtus I. Pope from 117 to 128. **II.**, 257–258; martyr. **III.**, 431-440. **IV.**, 1471-1484. **V.** (Felice Peretti), 1585-1590.

Skobeleff, Michael. 1843–1882. Russian general.

Slocum, Henry Wadsworth. 1827–..... American general.

Smiles, Samuel. 1816–.... Scottish author.

Smith, Adam. 1723–1790. Scottish political economist. *An Enquiry into the Nature and Causes of the Wealth of Nations.*

Smith, Gerrit. 1797–1874. American philanthropist.

Smith, Horace (1780?–1849) and James (1775–1839). English poets and humorists; brothers. *Rejected Addresses.*

Smith, John, Captain. 1579–1631. English explorer; founder of Virginia. *History of Virginia.*

Smith, Joseph. 1805–1844. Founder of the Mormon church.

Smith, Seba. *Maj. Jack Downing.* 1792–1868. Am. author.

Smith, Sydney. 1771–1845. English divine and essayist.

Smith, William H. 1825–1891. Leader House of Commons.

Smollett, Tobias George. 1721–1771. Scottish novelist.

Sobieski, John. 1629–1696. King of Poland and patriot. Defeated the Turks, and raised the siege of Vienna.

Socrates. 470?–399 B.C. Gr. philosopher; teacher of Plato.

Soliman II. *The Magnificent.* 1494–1566. Sultan of Turkey. Conquered Persia and part of Hungary.

Solomon. *The Wise.* 1033–975? B.C. King of Israel.

Solon. 638–558? B.C. Athenian law-giver and poet.

Somers, John, Baron. 1650–1716. Eng. jurist and statesman.

Sontag, Henriette, Countess Rossi. 1806–1854. German vocalist.

Sophocles. 495–405 B.C. Gr. tragic poet. *Œdipus Tyrannus.*

Sothern, Edward Askew. 1830–1881. English comedian.

Soult, Nicholas Jean de Dieu. 1769–1851. French marshal.

Southey, Robert. 1774–1843. English poet-laureate. *Thalaba; The Curse of Kehama; Roderick*, etc.

Southworth, Emma D. E. (Nevitt). 1818–.... American novelist. *Retribution; The Curse of Clifford; The Pearl of Pearl River*, etc.

Sparks, Jared. 1789–1866. American historian.

Spartacus. ....–71 B.C. Thracian gladiator in Rome; inaugurated Servile war.

Speke, John Hanning. 1827–1864. English explorer in Africa.

Spencer, Herbert. 1820–.... English philosopher. *Sociology.*

Spenser, Edmund. 1553–1599. English poet. *The Faerie Queen; The Shepheardes Calendar.*

Spinner, Francis E. 1802–1890. Treasurer of the U. S.

Spinoza, Benedict. 1632–1677. Dutch philosopher and pantheist. *Ethics Demonstrated by Geometrical Method.*

Spurgeon, Charles Haddon. 1834–.... English pulpit-orator.

Spurzheim, Johann Caspar. 1776–1832. German phrenologist.

Stael-Holstein, Anne Louise Germaine Necker de, Baronne. *Mme. de Staël.* 1766-1817. French authoress, and a lady of remarkable genius. *Corinne.*

Standish, Miles. 1584–1656. Captain of Plymouth Colony.

Stanhope, Philip Henry, Earl of. 1805–1875. Eng. historian.

Stanley, Arthur Penrhyn. *Dean Stanley.* 1815–1881. English divine and author; dean of Westminster Abbey.

Stanley, Henry M. (John Rowlands.) 1840–.... American explorer in Africa; born in Wales.

Stanton, Edwin McMasters. 1814–1869. American statesman; secretary of war in President Lincoln's cabinet.

Stanton, Elizabeth Cady. 1816–.... American "Woman's rights" advocate.

Starhemberg (or **Stahremberg**), Ernst Rudiger, Count. 1635–1701. Austrian general.

Starhemberg (or **Stahremberg**), Guido Baldi, Count. 1657–1737. Austrian general.

Stark, John. 1728–1822. American Revolutionary general.

Stedman, Edmund Clarence. 1833–.... American poet.

Steele, Sir Richard. 1671–1729. British essayist and dramatist. *The Funeral; The Tender Husband; The Conscious Lovers;* Essays in *The Tatler, The Spectator* and *The Guardian.*

Stein, Heinrich Friedrich Karl von, Baron. 1757–1831. Prussian statesman.

Stephen, Saint. Stoned 36? First Christian martyr.

Stephen I. Pope, 253–257. **II.**, 752. **III.**, 752–757. **IV.**, 768–772. **V.**, 816. **VI.**, 885–891. **VII.**, 896–897. **VIII.**, 928–930. **IX.**, 939–942. **X.**, 1057–1058.

Stephen I. (Saint.) 979–1038. King of Hungary.

Stephen. 1105–1154. King of England.

Stephens, Alexander Hamilton. 1812–1883. American statesman. Born in Georgia; admitted to the bar, 1835; Congress, 1843; vice-president of the Confederate States; elected to the U. S. Senate from Georgia, but not permitted to take his seat; member of the House of Representatives, however, from 1874 until his death. *History of the War between the States; A Constitutional View of the Late War between the States.*

Stephenson, George. 1781–1848. English engineer; inventor of the locomotive engine.

Stephenson, Robert. 1803–1859. Son of preceding. English engineer; inventor of the tubular bridge.

Sterling, John. 1806–1844. British essayist.

Sterne, Laurence, Rev. 1713–1768. Irish humorous writer. *Tristram Shandy; The Sentimental Journey.*

Steuben, Frederick William Augustus von, Baron. 1730–1794. German American general in the Revolutionary war.

Stevens, Thaddeus. 1793–1868. American abolitionist.

Stewart, Alexander Turney. 1802–1876. Am. merchant.

Stewart, Balfour. 1828–.... Scottish physicist.

Stoddard, Richard Henry. 1825–.... American poet.

Story, Joseph. 1779–1845. American jurist.

Story, William Wetmore. 1819–.... American sculptor.

Stowe, Mrs. Harriet Elizabeth Beecher. 1812–.... American authoress. *Uncle Tom's Cabin.*

Strabo. 54 B.C.–24 A.D. Greek geographer.

Stradella, Alessandro. 1645–1678. Italian composer.

Stradivari, Antonio. 1670–1735. Italian violin-maker.

Strafford, Thomas Wentworth, Earl of. 1593–1641. English statesman; beheaded.

Strauss, Johann. 1804–1849. Ger. composer of dance music.

Strauss, Johann. 1825–.... Son of preceding. German composer.

Strickland, Agnes. 1806–1874. English authoress.

Stuart, Gilbert C. 1756–1828. American portrait painter.

Stuyvesant, Peter. 1602–1682. Last Dutch governor of New Netherland (New York).

Sue, Marie Joseph Eugene. 1804–1857. French novelist.

Sulla (or Sylla), Lucius Cornelius. 138–78 B.C. Roman statesman and general.

Sullivan, Arthur. 1844–.... English composer. *Pinafore, Patience,* etc. See also *Gilbert.* Knighted by the Queen 1883.

Sumner, Charles. 1811–1874. American statesman, lawyer and abolitionist. *True Grandeur of Nations.*

Surrey, Henry Howard, Earl of. 1516?–1547. English poet.

Suwarow, Alexander Vasilievitch. 1729–1774. Rus. general.

Swedenborg, Emanuel. 1688–1772. Swedish theosophist. In his theosophy, the central point is the correspondence of the natural and the supernatural. *The True Christian Religion; The Mysteries of Heaven.*

Swift, Jonathan. 1667–1745. Irish divine and satirist. *Gulliver's Travels; Tale of a Tub.*

Swinburne, Algernon Charles. 1837–.... English poet.

Sylvester I. (Saint.) Pope, 314–335. **II.**, 999–1003. **III.** (Anti-pope), 1013.

TACITUS, Caius Cornelius. 55? after 117? Roman historian. *Germania.*

Taglioni, Marie, Countess des Voisins. 1804–1884. Swedish opera dancer.

Taine, Hippolyte Adolphe. 1828–.... French author.

Talbot, William Henry Fox. 1800–1877. English author and discoverer of photography.

Talfourd, Sir Thomas Noon. 1795–1854. Eng. author. *Ion.*

Talleyrand-Perigord, Charles Maurice de, Prince of Benevento. 1754–1838. French diplomatist.

Talmage, Thomas Dewitt. 1832–.... Am. clergyman.

Tamerlane (or Timour). 1336–1405. Asiatic conqueror.

Tancred. 1078–1112. Norman leader in the first crusade.

Taney, Roger Brooke. 1777–1864. American jurist.

Tannahill, Robert. 1774–1810. Scottish poet.

Tarquinius Superbus. (Lucius Tarquinius.) ....–495? B.C. Last king of Rome.

Tasman, Abel Janssen. 1600?–1645. Dutch navigator.

Tasso, Torquato. 1544–1595. Italian poet. *Jerusalem Delivered.*

Taylor, Bayard. 1825–1878. American traveller, novelist, poet and journalist; minister to Germany; translated Goethe's *Faust.* Among his works are *Views Afoot, or Europe seen with Knapsack and Staff; Travels; Poems of the Orient; Book of Romances; Lyrics and Songs,* and several novels.

Taylor, Jeremy. 1613–1667. English bishop and author.

Taylor, Thomas. *The Platonist.* 1758–1835. Eng. scholar.

Taylor, Tom. 1817–1880. English dramatist.

Taylor, Zachary. 1784–1850. American general and statesman; twelfth president. Born in Virginia; entered the army in 1808; served in Seminole and Black Hawk wars; major-general in Mexican war, and won the battles of Resaca de la Palma and Buena Vista. Elected president by the Whigs in 1848.

Tecumseh. 1770–1813. Chief of the Shawnee Indians; formed alliance of Western Indians, and was defeated by Harrison at Tippecanoe.

Tell, Wilhelm. Flem. 1305. Legendary Swiss hero.

Teniers, David. *The Younger.* 1610–1690. Flem. painter.

Tennyson, Alfred, Baron. 1809–.... Eng. poet-laur. *In Memoriam; Enoch Arden; The Princess; The Idylls of the King; Locksley Hall; The Lotus Eaters; The Holy Grail; Harold,* etc.

Terence. (P. Terentius Afer.) 195?-160? B.C. Roman comic poet.

Terpander. Fl. 675 B.C. Greek musician.

Terry, Alfred Howe. 1827–1890. American general.

Tertullian. 150?–230? Latin father of the church.

Tetzel, Johann. 1460?–1519. German monk; vender of indulgences.

Thackeray, William Makepeace. 1811–1863. English novelist. Born in Calcutta. *Henry Esmond; Vanity Fair; The Newcomes; Pendennis; The Adventures of Philip; The Virginians; The Book of Snobs; The Four Georges; English Humorists.*

Thalberg, Sigismond. 1812–1871. Swiss pianist.

Thales. 635?–546 B.C. Greek sage and philosopher.

Themistocles. 514?–449? B.C. Athenian general and statesman.

Theocritus. Fl. 275? Greek pastoral poet.

Theodora. ....–548. Empress of the East; wife of Justinian.

Theodore. 1818?–1868. King of Abyssinia.

Theodoric. *The Great.* 455–526. King of the Ostrogoths.

Theodosius, Flavius. *The Great.* 346?–395. Rom. emperor.

Theophrastus. 372?–287? B.C. Gr. philosopher and moralist.

Thierry, Jacques N. Augustin. 1795–1836. French historian.

Thiers, Louis Adolphe. 1797–1877. French statesman and historian. *History of the Consulate and Empire.*

Thomas, George H. 1816–1870. American federal general. Won the battles of Chickamauga and Nashville.

Thomson, James. 1700–1748. Scotch poet. *The Seasons; The Castle of Indolence; Tancred and Sigismunda.*

Thoreau, Henry D. 1817–1862. American author. *The Concord and Merrimac Rivers; The Maine Woods.*

Thorwaldsen, Albert D. 1770–1844. Danish sculptor.

Thucydides. 470–400 B.C. Greek historian.

Tiberius. 42 B.C.–37 A.D. Roman emperor.

Tilden, Samuel Jones. 1814–1886. American statesman. Governor of New York; Democratic candidate for presidency, 1876.

Tilly, Johann Tzerklas von, Count. 1550-1632. German general in Thirty Years' war; fell at the battle of the Lech.

Timoleon. 395–337 B.C. Corinthian general.

Tindal, Matthew. 1657?–1733. English theological writer.

Tintoretto, Il. (Giacomo Robusti.) 1512–1594. It. painter.

Titian. (Tiziano Vecellio.) 1477–1576. The greatest of Venetian painters. *Assumption of the Virgin; Peter Martyr; The Last Supper; Bacchus and Ariadne; Homage of Frederick Barbarossa to the Pope,* etc.

Titiens (or Titjens), Therese. 1834–1877. German vocalist.

Titus. 40–81. Roman emperor.

Tobin, John. 1770–1804. Eng. dramatist. *The Honeymoon.*

Tocqueville, Alexis Charles Henri Clerel de. 1805–1859. French statesman; author of *Democracy in America.*

Todleben, Franz Eduard. 1818–1884. Russian general.

Tone, Theobald Wolfe. 1763–1798. Irish patriot; founder of the United Irishman.

Tooke, John Horne. 1736–1812. English philologist and radical. Having said that certain Americans had been "murdered" at the battle of Lexington, he was sentenced to one year's imprisonment and a heavy fine; subsequently tried for treason, but acquitted.

Torquemada, Tomas de. 1420–1498. Spanish Dominican monk; inquisitor-general.

Torricelli, Evangelista. 1608–1647. Italian physicist.

Toussaint l'Ouverture, François Dominique. 1743–1803. Negro leader of the Haytien rebellion.

Trajan. 52–117. Roman emperor.

Trollope, Anthony. 1815–1883. English novelist.

Tromp, Marten Harpertzoon van. 1597–1653. Dutch admiral.

Tromp, Cornelis van. 1629–1691. Dutch admiral.

Trumbull, John. 1750–1831. American poet and satirist.

Trumbull, John. 1756–1843. American painter.

Trumbull, Jonathan. 1740–1809. American statesman.

Tupper, Martin Farquhar. 1810–1889. Eng. poet and author.

Turenne, Henri de la Tour d'Auvergne, Vicomte de. 1611–1675. French general. Defeated Condé and the Spaniards in 1659; invaded Holland in 1672; killed at Salzbach.

Turgenef, Ivan Sergyevich. 1818–1883. Russian novelist.

Turner, Joseph Mallord William. 1775–1851. English landscape painter. The son of a barber. *The Battle of the Nile; The Sun Rising through Vapor; The Fall of Schaffhausen.*

Turpin, Dick. 1711–1739. English highwayman.

Tweed, William Marcy. *Boss Tweed.* 1823–1878. American politician and embezzler; mayor of New York city.

Tyler, John. 1790–1862. Tenth president of the United States. Born in Va.; practiced law; Congress, 1816–21; governor of Virginia, 1825; senator, 1827; sympathized with the nullifiers and opposed Jackson; resigned 1836; elected vice-president on Whig ticket, 1840; succeeded Harrison in 1841.

Tyler, Wat. ....–1381. English rebel; leader of rebellion against capitation tax.

Tyndall, John. 1820–.... Irish scientist.

UDAL, Nicolas. 1506–1564. English dramatist and teacher. Author of the first English comedy.

Uhland, Johann Ludwig. 1787–1862. German lyric poet.

Ulloa, Antonio de. 1716–1795. Spanish mathematician and naval officer; governor of Louisiana.

Ulphilas. 313–383. The apostle of the Goths. Translated the Scriptures into Gothic.

Ulpianus, Domitius. ....–228. Roman jurist.

Unger, Johann Friedrich. 1750–1813. German printer and engraver.

Urban I. Pope, ruling 223–230; martyr. **II.,** 1088–1099; organized the first crusade. **III.,** 1184–1187. **IV.,** 1261–1264. **V.,** 1362–1370. **VI.,** 1378–1389. **VII.,** 1500; died on the twelfth day of his pontificate. **VIII.,** 1623–1644.

Ure, Andrew. 1778–1857. Scottish chemist and physician.

Urfe, Honoré d'. 1567–1625. French romancist.

Ussher, James. 1580–1656. Irish prelate and scholar.

Utrecht, Adriaan van. 1599–1651. Dutch painter.

VALENS, Flavius. 328?–378. Emperor of the East. Brother of Valentinian I. Arian persecutor of orthodox Christians.

Valentinianus I. (Flavius.) 321–375. Roman emperor. **II.** (Flavius), 371–392. **III.** (Placidius), 419–455.

Valerian. (Publius Lucinius Valerianus.) ....–268? Roman emperor.

Van Buren, Martin. 1782–1862. Eighth president of the United States. Enrolled at the bar in New York in 1803, and elected to the state senate; state attorney-general, 1815; leader of the "Albany Regency"; U. S. Senator, 1821; governor, 1828; secretary of state, 1829–31; vice-president, 1833–7; president, 1837–41.

Vancouver, George. 1758?–1798. English navigator.

Vanderbilt, Cornelius. 1794–1877. American capitalist.

Vandyke (or **Van Dyck**), Sir Anthony. 1599–1641. Flemish painter. Resided in England for several years before his death, where he became the most popular artist of his time. Besides many portraits, including those of the celebrated artists of his time and several of Charles I., may be mentioned as among his best works, *The Crucifixion; St. Augustine in Ecstacy,* and *The Erection of the Cross.*

Vane, Sir Henry. 1612–1662. English republican statesman. Convicted of treason and executed.

Vanloo, Charles André. 1705–1765. French painter.

Vanloo, Jean Baptiste. 1684–1745. French painter.

Van Rensselaer, Stephen. *The Patroon.* 1764–1839. American statesman and landholder.

Varus, Publius Quintilius. Fl. 7. Roman general; governor of Germany; defeated by Arminius.

Vassar, Matthew. 1792–1868. Founder of Vassar College.

Vauban, Sébastien le Prestre, Seigneur de. 1633–1707. French military engineer.

Velasquez, Don Diego Rodriguez de Silva y. 1599–1660. Spanish painter.

Velde, Willem van der. *The Elder.* 1610–1693. Dutch marine painter.

Velde, Willem van der. *The Younger.* 1633–1707. Dutch marine painter.

Vendome, Louis Joseph, Duc de. 1654–1712. Fr. general.

Verbœckhoven, Eugène Joseph. 1799–1881. Belgian painter.

Verdi, Giuseppe. 1814–.... Italian composer. *Ernani; La Traviata; Il Trovatore; Aïda.*

Vernet, Antoine Charles Horace. 1758–1836. Fr. painter.

Vernon, Edward. 1684–1757. English admiral.

Vespasianus, Titus Flavius. 9–79. Roman emperor.

Vespucci, Amerigo. (Americus Vespucius.) 1451–1512. Italian navigator and astronomer, after whom America is named.

Viaud, Jean ("Pierre Luti"). 1850–.... French writer.

Victor, Claude Perrin, Duke of Belluno. 1764–1841. French marshal.

Victor I. Pope, from 185 to 198. **II.,** 1055–1057. **III.,** 1086–1087. **IV.** (Anti-pope), recognized by Frederick I. in 1159; died 1164.

Victor Emmanuel I. 1759–1824. King of Sardinia. **II.,** 1820–1878; first king of Italy; restored Italian unity.

Victoria. (Victoria Alexandrina.) 1819–.... Queen of Great Britain and empress of India.

Vidocq, Eugène François. 1775–1850. French detective.

Villars, Claude Louis Hector de, Duc. 1653–1734. French general.

Vincent de Paul, Saint. 1576–1660. French priest and reformer. Founded the Congregation of Missions and the Sisters of Charity.

Vinci, Leonardo da. 1452–1519. Italian painter. *Last Supper; Madonna; Adoration of the Magi*, etc.

Virgil (or Vergil). (Publius Virgilius Maro.) 70–19 B.C. Latin poet. *Æneid; Eclogues; Bucolics; Georgics.*

Volta, Alessandro. 1745–1827. It. inventor of the voltaic pile.

Voltaire, François Marie Arouet de. 1694–1778. French author, poet, wit, dramatist, historian, philosopher and skeptic. The son of a notary; imprisoned in the Bastile in 1716 on an unfounded suspicion of being the author of a libel on the Regent, and there produced *Œdipe* and wrote part of the *Henriade*; in England, 1726–9, passing much time in the society of Bolingbroke; his drama of *Zaïre* appeared in 1730, and about the same time he finished his *History of Charles XII.*; *Alzire*, 1736; *Mahomet*, 1741; *Merope*, 1743; passed the years 1750–3 with Frederick the Great; took up his residence (1755) at Ferney. *The Age of Louis XIV.*; *Essay on the Manners of Nations*; *Candide.*

Voorhees, Daniel W. 1827–.... American orator and statesman; senator from Indiana.

Vortigern. ....–485. King of the Britons.

WADDINGTON, William Henry. 1826–.... French statesman and archæologist.

Wagner, Richard. 1813–1883. German composer, poet and critic. *Rienzi; The Flying Dutchman; Tannhäuser; Lohengrin; Götterdämmerung; Nibelungenlied; Rheingold*, etc.

Waite, Morrison Remich. 1816–1888. American chief justice.

Waldemar I. *The Great.* 1131–1181. King of Denmark.

Walker, John. 1732–1807. English lexicographer.

Wallace, Sir William. 1270?–1305. Scottish general and patriot. Defeated by Edward I. of England; betrayed and executed.

Wallace, William Vincent. 1815–1865. Irish composer. *Maritana.*

Wallenstein. Albrecht Wenzel Eusebius von, Count. 1583–1634. Austrian general. Hero of one of Schiller's dramas. Entered the imperial army at the beginning of the Thirty Years' war; raised an army at his own expense in 1625, invading Denmark; banished from court by Emperor Ferdinand, but recalled on the death of Marshal Tilly; defeated by Gustavus Adolphus at Lutzen in 1632, but gained several victories in Silesia; again lost the emperor's favor, being charged with aspirations to the throne of Bohemia, was deprived of his command and assassinated.

Walpole, Horace, Earl of Orford. 1717–1797. English author and wit. *Catalogue of Royal and Noble Authors.*

Walther von der Vogelweide. ("Walter of the Bird-Meadow.") 1170?–1230? Greatest of the German minnesingers.

Walton, Izaak. 1593–1683. English writer. *The Complete Angler; or, A Contemplative Man's Recreation.*

Warbeck, Perkin. ....–1499. English pretender; hanged.

Ward, Artemas. 1727–1780. American general.

Warner, Charles Dudley. 1829–.... American humorist.

Warner, Susan. (Elizabeth Wetherell.) 1818–1885. American authoress.

Warren, Joseph. 1741–1775. American physician, Revolutionary general and patriot; fell at Bunker Hill.

Warren, Samuel. 1807–1877. English author.

Warwick, Richard Neville, Earl of. *The King-maker.* 1420?–1471. English warrior. Set up and deposed Edward IV. Hero of Bulwer's *Last of the Barons.*

Washington, George. 1732–1799. Commander-in-chief in the American Revolution and first president of the United States. Born in Virginia. Aide-de-camp to Braddock in the Indian campaign of 1755; married Martha Custis, 1759; chosen to Congress, 1774; appointed commander-in-chief, 1775; president, 1789–97.

Watt, James. 1736–1819. Scottish engineer and inventor. Improved and completed the steam-engine. Has also been credited with the discovery of the composition of water.

Watteau, Jean Antoine. 1684–1721. French painter.

Watts, Isaac. 1674–1748. English Dissenting minister and sacred poet. *Hymns.*

Wayne, Anthony. 1745–1796. American Revolutionary general. Captured Stony Point.

Weber, Karl Maria Friedrich Ernst von, Baron. 1786–1826. German composer. *Der Freischütz.* His *Waldmädchen*, subsequently known as *Sylvana*, was composed at sixteen.

Webster, Daniel. 1782–1852. American lawyer, orator and statesman. Born in N. H.; Congress, 1812-16, 1822-8; Senate, 1828-41; secretary of state; re-entered the Senate in 1844; again became secretary of state in 1850. Webster was nominated for the presidency in 1834, but defeated; candidate for the Whig nomination in 1840, but defeated by Taylor, whom he cordially supported. Webster's reply to Hayne of South Carolina, is considered the greatest speech ever made on the floors of Congress. His greatest legal effort was in the famous Dartmouth College case.

Webster, Noah. 1758–1843. American lexicographer.

Wedgwood, Josiah. 1730–1795. English potter.

Weed, Thurlow. 1797–1883. American journalist.

Wellington, Arthur Wellesley, first Duke of. 1769–1852. British general and statesman. Gained great distinction in India, in the war against the Mahrattas; major-general, 1802; Parliament, 1806; secretary for Ireland, 1807; defeated the Danes at Kioge, and was given command of an army sent to Spain against the French, 1808; opposed by superior forces and able generals, but ably thwarted their plans; triumphantly entered Madrid, 1812; defeated Jourdan and Soult, 1813; invaded France and gained numerous victories; defeated Napoleon at Waterloo, 1815, and entered Paris with the allies same year. Was afterward prime minister and minister of foreign affairs.

Wells, Horace. 1815–1848. American dentist. (Anæsthesia.)

Wells, Samuel Roberts. 1820–1875. Am. phrenologist.

Wenceslaus (or Wenzel). 1361–1419. Emperor of Germany and king of Bohemia.

Wesley, Charles. 1708–1788. English Methodist divine and hymn-writer.

Wesley, John. 1703–1791. Brother of preceding. English founder of Methodism.

West, Benjamin. 1738–1820. Am. painter in England.

Wharton, Francis. 1820–1889. Am. jurist and theologian.

Wharton, Henry. 1664–1695. English ecclesiastical writer

Whately, Richard. 1787–1863. Irish prelate and author.

Wheeler, William Almon. 1819–1887. American statesman; vice-president.

Whewell, William. 1794–1866. English philosopher.

White, Andrew Dickson. 1832–.... American scholar.

White, Henry Kirke. 1785–1806. English religious poet.

White, Joseph Blanco. 1775–1841. English author.

White, Richard Grant. 1822–1885. American author.

Whitefield, George. 1714–1770. English preacher; founder of Calvinistic Methodists.

Whitman, Walt. 1819–.... American poet. In turn carpenter, editor, nurse and government clerk. *Leaves of Grass.*

Whitney, Eli. 1765–1825. Inventor of the cotton-gin.

Whittier, John Greenleaf. 1807–.... American poet. Born at Haverhill, Mass. Member of the Society of Friends. Farmer, shoemaker, journalist and abolitionist agitator. *Snow Bound*; *Voices of Freedom*; *Songs of Labor*; *Home Ballads*; *In War Time*; *National Lyrics*; *The Tent on the Beach*; *Ballads of New England*; *Hazel Blossoms*, etc.

Wieland, Christoph Martin. 1733–1813. German poet.

Wilberforce, William. 1759–1833. English philanthropist and statesman. Secured the abolition of the slave trade.

William I. *The Conqueror.* 1027–1087. King of England. Duke of Normandy; conquered England. II., *Rufus*, 1056–1100. III. (William Henry of Nassau, Prince of Orange), 1650–1702; won battle of the Boyne. IV., 1765–1837; uncle of Queen Victoria.

William I. 1772–1843. King of the Netherlands. II., 1792–1849. III., 1817–1890.

William I. 1797–1888. King of Prussia and emperor of Germany. II., 1859–....

Williams, Eleazer. 1787–1858. American clergyman, claiming to be the son of Louis XVI. and Marie Antoinette.

Williams, Roger. 1599–1683. English Puritan minister; founder of Rhode Island colony; born in Wales.

Willis, Nathaniel Parker. 1806–1867. American journalist and poet.

Wilmot, David. 1814–1868. American statesman; author of the Wilmot Proviso.

Wilson, Alexander. 1766–1813. Scottish-American ornithologist.

Wilson, Henry. (Jeremiah Jones Colbath.) 1812–1875. American politician; eighteenth vice-president.

Wilson, John. *Christopher North.* 1785–1854. Scottish writer.

Windom, William. 1828–1891. Sec. of U. S. Treasury.

Wiseman, Nicholas. 1802–1865. Eng. Catholic cardinal.

Wittekind. ....–807. Saxon warrior; conquered by Charlemagne.

Wolcott, John. 1738–1819. English satirist. *Peter Pindar's Odes.*

Wolfe, Charles. 1791–1823. Irish poet. *Burial of Sir John Moore.*

Wolfe, James. 1726–1759. Eng. general; fell at Quebec.

Wolseley, Garnet Jos., Viscount. 1833–.... British gen.

Wolsey, Thomas. 1471–1530. English cardinal and statesman. Prime minister of Henry VIII.; deposed 1529.

Wood, Mrs. Henry. 1820–1887. Eng. novelist. *East Lynne.*

Woodworth, Samuel. 1785–1842. American poet. *Old Oaken Bucket.*

Worcester, Edward Somerset, Marquis of. 1601?–1667. English nobleman; one of the inventors of the steam-engine.

Worcester, Joseph Emerson. 1734–1866. Am. lexicographer.

Wordsworth, William. 1770–1850. English poet. Educated at Cambridge; with Coleridge produced *Lyrical Ballads*, 1798; settled at Rydal Mount, 1803; *Poems*, 1807; *The Excursion*, 1814; *The White Doe of Rylstone*, 1815; *Peter Bell*, 1816. *Ecclesiastical Sonnets; The Wagoner; Yarrow Revisited; The Prelude.*

Wrangel, Karl Gustaf von, Count. 1613–1675. Sw. general.

Wrangell, Ferdinand Petrovitch von, Baron. 1795?–1870. Russian explorer; governor of Russian America.

Wren, Sir Christopher. 1632–1723. English architect. (St. Paul's Cathedral, London.)

Wright, Silas. 1795–1847. American statesman.

Wycherley, William. 1640?–1715. English comedy writer.

Wycliffe (or **Wickliffe**), John de. 1324?–1384. English reformer; translator of the Scriptures.

XANTIPPE. The wife of Socrates; notorious for bad temper, but credited by her husband with many domestic virtues.

Xavier Francis, Saint. *The Apostle of the Indies.* 1506–1552. French Jesuit missionary to India and Japan.

Xenocrates. 396–314 B.C. Greek philosopher.

Xenophanes. 600?–500? B.C. Greek philosopher.

Xenophon. 445?–355? B.C. Athenian historian and general. *Anabasis; Cyropædia.*

Xerxes I. *The Great.* ....–465 B.C. King of Persia. Invaded Greece, but was defeated at Salamis.

Ximenes, Francisco, Cardinal. 1436–1517. Spanish prelate, statesman and patron of literature. Published Polyglot Bible.

YAKOOB IBN LAIS. ....–879. Founder of the Persian dynasty of the Suffarides. Conquered Seïstan and Farsistan.

Yale, Elihu. 1648–1721. Founder of Yale College.

Yancey, William Lowndes. 1814–1863. American politician.

Yonge, Charlotte Mary. 1823–.... English authoress.

Yorck von Wartenburg, Hans David Ludwig, Count. 1759–1830. Prussian general.

York, Edmund Plantagenet, first Duke of. 1341–1402. Founder of the house of York.

Yorke, Charles, Lord Morden. 1722–1770. English statesman and jurist.

Young, Arthur. 1741–1820. English agricultural writer.

Young, Brigham. 1801–1877. President of the Mormon church.

Young, Charles Augustus. 1834–.... Amer. astronomer.

Young, Edward. 1684–1765. English poet. *Night Thoughts; Love of Fame the Universal Passion; The Revenge.*

Yves, Saint. 1253–1303. French monk and jurist; patron of lawyers.

ZALEUCUS. Fl. 7th century B.C. Greek legislator and reformer; first to make a written code of laws.

Zamoyski, John Sarius. 1541–1605. Polish general, statesman and scholar.

Zechariah. Fl. 6th century B.C. Hebrew prophet.

Zelotti, Battista. 1532–1592. Italian painter.

Zeno (or **Zenon**). 355?–307? B.C. Greek philosopher; founde of the school of Stoics.

Zeno (or **Zenon**). 495–....? Greek philosopher.

Zeno. ....–491. Emperor of the East.

Zenobia, Septimia. ....–275. Queen of Palmyra. Beautiful, learned, and possessed of a warlike and masculine temper. Her dominions extended from the Mediterranean to the Euphrates, and included a large part of Asia Minor. Defeated by Aurelian, she retired to Italy.

Zephaniah. Hebrew prophet, who flourished in the reign of Josiah. Foretold the destruction of Jerusalem.

Zeuxis. 450–....? Greek painter.

Zhukovsky, Vasili Andreevitch. 1783–1852. Russian poet.

Zimmerman, Johann Georg von. 1728–1795. Swiss physician and philosopher. *On Solitude.*

Zinzendorf, Nicolaus Ludwig von, Count. 1700–1760. German theologian; restorer of the sect of Moravians.

Ziska, John, of Trocznow. 1360–1424. Bohemian general and leader of the Hussites.

Zoega, Georg. 1755–1809. Danish archæologist.

Zollicoffer, Felix K. 1812–1862. American general.

Zoroaster. Fl. 1500 B.C. Persian philosopher and founder of the Magian religion.

Zschokke, Johann Heinrich Daniel. 1771–1848. German author.

Zuccaro, Federigo. 1543–1609. Italian painter.

Zwingle, Ulrich. 1484–1531. Swiss reformer; killed in battle. *Exposition of the Christian Faith.*

A PANORAMA OF HISTORY

A GRAPHIC ACCOUNT OF EVERY NATION ON THE GLOBE.

THE UNITED STATES.

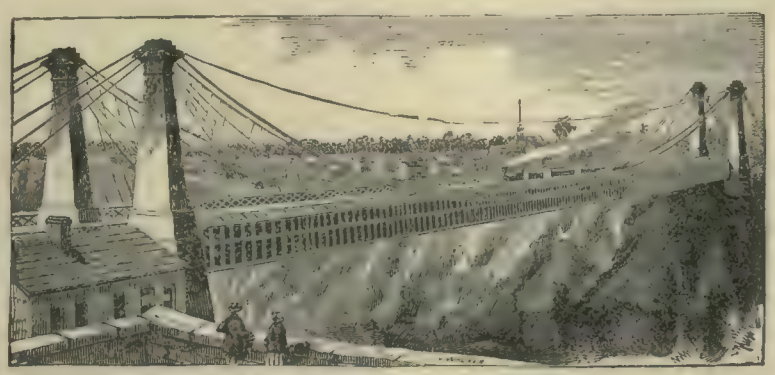
BEFORE the occurrence of the events which awoke a national feeling in the thirteen colonies, their history was an uninteresting series of selfish bickerings and quarrels. Only once or twice during this period did any of the colonies form unions with one another, and even then it was done solely for the purpose of mutual protection against the common enemy, the Indians, whose incursions upon the settlements, and the wars waged against them, form the most romantic pages of this period of American history. The people were too loyal to think of separating from the mother country, whose utter disregard of her alien children is alone to blame for the loss of the empire which they deprived her of when they united and fought for and obtained the glorious boon of national independence. It is with the events which preceded this consummation that the history of the United States really begins. Unacquainted at once with the needs and with the spirit of the colonists, the home Government brought to bear upon them several oppressive measures against which they entered more than one gentle but decided protest. No taxation without representation was the central idea of the Colonial opposition to British rule, and when, in 1765, the British Government passed what was known as the Stamp Act, requiring the colonists to place the Government stamp upon all their legal documents, newspapers or pamphlets, a general opposition to the law was aroused in the colonies, which resulted in the calling of a Colonial Congress, which entered a formal protest against the measure. Its repeal was secured by this action, but the relief was only temporary, as ten years later the Government imposed a duty on tea, glass, paper and other colonial imports, which was bitterly resisted. In Boston the outcry against it was especially loud, and there occurred that very ominous affair known as the "Boston Tea Party," when patriotic colonists, disguised as Indians, boarded the British ships and threw into the bay the tea which constituted their main cargoes. The British Parliament closed the port of Boston, and these harsh measures, unrelieved by any efforts in the direction of conciliation, drove the colonists to rebellion.



THE FALLS OF NIAGARA.

War began April 19, 1775, when the Colonial militia and the British troops met at Concord. Common cause was at once made by the colonists, who raised troops and placed them under the command of George Washington, a Virginian,

who had served with credit as an English officer in the wars against the French in the West. Boston was evacuated by the British March 17, 1776, and July 4th of the same year Congress adopted the Declaration of Independence. Reverses now befell the Colonial armies. New York was lost to them, and this serious blow was hardly offset by the victories of Princeton and Trenton. Philadelphia was abandoned in 1777, the most important Colonial victory of that year being the one gained by General Gates at Saratoga, where he captured General Burgoyne and his army. Very serious was the drain upon the population and resources of the Revolutionary Government at this time, and during the winter of 1777–78, which the American army passed in camp at Valley Forge, the fortunes of the young nation seemed at a very low ebb. While the army was suffering from cold and short rations during this season, the American diplomat Benjamin Franklin was at the court of France, successfully conducting negotiations which led to the establishment of a defensive and offensive alliance between that country and the Americans. French money and men proved a timely aid, though for two years the colonists made no great headway. In 1781 the campaign in the South was conducted with such vigor that the British forces there were cooped up in Savannah, Georgia, and Charleston, South Carolina. Successes further north followed, and the surrender of General Cornwallis at Yorktown, Virginia, proved the ruin of the British cause in America, and the practical termination of the war. In the following year negotiations for peace were begun, and a treaty acknowledging the independence of the United States was signed September 3, 1783.



THE SUSPENSION BRIDGE, NIAGARA.

It had been felt all through the war that the articles of confederation under which the different colonies co-operated were altogether inadequate to the conduct of the young nation's affairs, and the revision of the form of government was one of the earliest matters to receive the attention of its leaders. A convention was called at Annapolis in 1787, which framed the Constitution of the United States, which was duly ratified by the States and has remained, with the addition of sundry amendments, the embodiment of the principles of government in this country ever since. In 1789 General George Washington was elected first President of the United States, and a second term of office was accorded him in 1793, at the end of which he declined to again accept the office, thus establishing the no-third-term precedent, violation of which has not since been permitted by the American people. Early in the political history of the country party lines began to be sharply drawn, the adoption of the Constitution causing the first clearly defined difference of opinion, when those favoring it became known as Federalists and those opposed to it as Anti-Federalists, the latter party assuming the name Republican subsequent to the Constitution's adoption. The presidential elections following those of Washington, in which patriotic sentiment was allowed to overcome party feeling, were purely partisan; and while the Federalists succeeded in placing John Adams in the presidential chair as Washington's successor, the Republicans elected Jefferson, Madison and Monroe, each for two terms of office. With the exception of wars with the Indians, who disputed the advance into their territories caused by the rapid growth of the population, the country was at peace during the years subsequent to Washington's inauguration. In 1812, however, differences arose with Great Britain, then at war with France, the most serious of which was her persistence in asserting the right of searching American vessels and removing from them sailors who she claimed were of British birth, but who really, in a vast majority of cases, were American citizens, of whom not less than 6,000 were so impressed in the year 1811. The war was conducted with varying success in different parts of the continent. In the operations against Canada, General William Henry Harrison won a glorious victory near Detroit, defeating a British army with which was allied a powerful force of Indians under the famous leader Tecumseh, who was slain. General Scott secured successes at Lundy's Lane and Chippewa, while Commodor, Perry, on Lake Erie, and Commodore McDonough, on Lake Champlain, swept those waters of British war vessels and greatly enhanced the importance of the military victories. In the South, General Jackson defeated the British at the memorable battle of New Orleans. The principal reverses sustained during the war were the capture of General Hull and his army at Detroit, and of General Winchester and the defeat of the Americans at Bladensburgh, which opened the way to the British occupation of Washington. The war, which came to an end December 24, 1814, was strongly opposed by the Federalists, and led to the overthrow of the Republican party. While it was in progress an uprising of the Creek Indians in Alabama caused considerable trouble, but they were conquered by General Jackson. Further troubles with Indians occurred in 1832, when the Sacs and Foxes, tribes living in the Northwest, had to be quelled in what is known as the Black Hawk war, and in 1835, when Osceola, a crafty leader of the Seminole tribe, of Florida, began a war which lasted for four years before they were brought under subjection. All of these troublesome savages were removed to lands reserved for them, and known then and since as the Indian Territory.

Although no foreign war occupied the public mind for thirty years from the close of that of 1812, important events

at home caused great agitation. The question of perpetuating the institution of slavery in the new States caused a long and excited controversy, which ended temporarily in 1820 by the admission of Missouri as a slave State, with a compromise resolution providing that in future no slave State should exist north of the parallel 36 degrees 20 seconds north latitude. In 1832, the adoption of a high protective tariff by Congress was resented by the Southern States, South Carolina declaring it unconstitutional and threatening secession. Happily, when a collision seemed unavoidable, a compromise, effected by Henry Clay, providing for the gradual reduction of duties, restored a peaceful condition of affairs. In 1837 occurred a financial crisis attended with many serious commercial disasters, the result of a period of over-speculation and expansion of the currency. During the administration of President Tyler, the boundary question threatened a disruption of peaceful relations with Great Britain, but the arbitration treaty, which was arranged by Daniel Webster, averted the threatened disaster. In 1845, the Mexican State of Texas, which had been largely settled by Americans, and which had declared its independence some years previous, was annexed by the United States. A dispute with Mexico over the boundary question followed, which led to war, and General Zachary Taylor, in the battles of Palo Alto and Resaca de la Palma, captured the city of Monterey, and marched on to Buena Vista, where he defeated the Mexican General Santa Anna. In 1847, General Winfield Scott captured the seaport of Vera Cruz, and, marching up the valley of Mexico, fought and won the battles of Cerro Gordo, Churubusco and Chapultepec, and captured the city of Mexico. The war came to an end February 2, 1848, the Mexicans ceding New Mexico and Upper California to the United States.

No foreign war was conducted by the United States after this, but within her boundaries a conflict of forces was going on which was doomed to bring the country to internal strife. The agitation of the slavery question continued, and, as years went by, the discussion of its merits increased in bitterness. Still the country continued to grow rapidly in wealth and population, and many hoped that some compromise might yet preserve the national peace, which the more reckless supporters of both the Abolition and Slavery parties, judging by the fierceness of their utterances, seemed to hold of much lighter account than the respective principles they upheld. As each election went by, the issue became more clearly that of slavery or freedom, and in 1860 Abraham Lincoln was elected President by the Republican party on a platform which, while leaving to each State the right to order and control its own domestic institutions, insisted that freedom was the normal condition of all the territory of the United States. On the other hand, the Southern States had made the declaration that



THE CITY OF BOSTON.

the election of a President pledged to oppose the extension of slavery would be a violation of their constitutional rights and a moral invasion of the Slave States. In adherence to this declaration, in December, 1860, South Carolina seceded from the Union, and her example was followed by Mississippi, Georgia, Alabama, Florida, Louisiana, Texas, Virginia, Arkansas, Tennessee and North Carolina. In April following the Confederates opened hostilities by bombarding Fort Sumter, near Charleston, S. C., and compelling the Union-



THE BROOKLYN SUSPENSION BRIDGE.

garrison to surrender. Both sides to the impending conflict armed with haste, and the first serious clash of arms occurred at Bull Run, where the Federal forces became panic-stricken and suffered defeat. The Confederates gained but a slight advantage and were driven back. In the West, where the Confederates had closed up the Mississippi River, the Federals captured Forts Henry and Donelson, and overran the State of Tennessee. On January 1, 1863, President Lincoln issued the Emancipation Proclamation. With varying fortunes the war progressed until July 4th of that year, when Vicksburg fell before General Grant, and, Port Hudson surrendering a few days later, the blockade of the Mississippi was ended. The battle of Gettysburg, at which General Meade defeated Lee's splendid army, was another important Northern victory during the year of Emancipation. In 1864, General Sherman captured Atlanta, and accomplished his march to the sea, which ended with the fall of Savannah. The bloody victories of the Wilderness and of Spottsylvania helped the Union soldiers in their march south, and the siege of Petersburg was conducted by General Grant in command of a line between thirty and forty miles in length. The fall of Richmond and Petersburg, April 2 and 3, 1865, brought the end near, and a week later General Lee surrendered at Appomattox Court-house. The war, in the conduct of which nearly 1,800,000 Union soldiers had been enlisted, and a debt of $2,000,000,000 incurred, called for special financial legislation. In 1862, and on subsequent occasions, were issued legal tender notes of the United States, and interest-bearing bonds of various kinds. A national bank system, which survives, was established. Customs duties

were raised to an average of nearly 50 per cent, and a direct tax and a large variety of internal revenue duties were imposed. These impositions provided for the annual expenditures of the Government, which were increased from $60,000,000 in 1860 to $1,217,000,000 in 1865.



COL. W. A. ROEBLING.
BUILDER OF THE BROOKLYN BRIDGE.

April 14, 1865, a few weeks after his inauguration for the second term, President Lincoln was assassinated at Washington by J. Wilkes Booth, who was hunted down and killed a few days later, four of his accomplices being convicted and executed. Vice-President Johnson became President, and the work of political reconstruction was begun. The Thirteenth Amendment to the Constitution, abolishing slavery within the United States and places subject to their jurisdiction, was duly ratified and proclaimed. In April, 1866, Congress passed the Civil Rights bill over the President's veto, thus ensuring protection to the freed slaves, and giving to the Federal courts enlarged jurisdiction in the matter. In June was passed the Fourteenth Amendment, whereby equal civil rights were guaranteed to all, irrespective of race or color. By this time the breach between President Johnson and the Republican party was complete, and the antagonism grew until in March, 1867, the Republican Congress passed, over the President's veto, the tenure of office act, intended to contract the executive's power to remove officials. Mr. Johnson deemed the act an unconstitutional invasion of his rights, and defied it, which led to his impeachment and trial by the Senate, who acquitted him, the two-thirds vote necessary for a conviction not being secured. Just before his retirement, the Fifteenth Amendment to the Constitution was passed, which provides that the rights of citizens of the United States to vote shall not be denied or abridged by the United States, or by any State, on account of race, color or previous condition of servitude.

At the next presidential election General U. S. Grant received the nomination of the Republican party and was elected. Representation in Congress was restored to such States as had not regained it since reconstruction commenced. In 1869 the Union Pacific and Central Pacific railroads were completed, connecting the Atlantic and Pacific oceans by rail.

The claims of the United States against the British Government for the depredations of the Alabama and other Confederate cruisers built by the English were referred to a tribunal of arbitration, which met at Geneva, Switzerland, in December, 1871, and awarded the United States the sum of $15,500,000 damages, this being the first occasion in the world's history in which an international difficulty of such gravity had been disposed of in so peaceful a manner.

During General Grant's second term, which began in 1873, the Indians gave trouble. The Apaches, in Arizona, were subdued by General Crook. In 1873, General E. R. S. Canby and some other officers were treacherously massacred by the Modocs, who were destroyed after a hard struggle. In 1876, the Sioux, in Montana, under Sitting Bull, rebelled against United States authority and were attacked by General George A. Custer, who, with his immediate command, was surrounded and slain, other companies of the cavalry regiment under him being rescued by General Terry.



THE NEW YORK ELEVATED RAILROAD.

In 1876 the convention of the Republican party nominated Rutherford B. Hayes, of Ohio, for President, while Samuel J. Tilden, of New York, was put forward by the Democrats. The ensuing election was extremely close, Mr. Tilden receiving a majority of the popular vote, and the returns also giving him a majority of the Electoral College. The returns from Florida and Louisiana were disputed, however, on the ground of fraud. Congress was unable to reach a decision, and an Electoral Commission was appointed. Under its decision, by a vote of 8 to 7, Mr. Hayes became President, the commission allotting him 185 of the electoral votes, one more than the number allotted Mr. Tilden. During the administration of President Hayes a great cause of irritation throughout the South was removed by his aversion to the use of the military power of the United States in controlling State governments. The decline of values in all parts of the country, however, as the time for resumption of specie payments approached, caused great distress. Wages were lowered, and thousands thrown out of employment. In the summer of 1877 a great strike of men engaged by the railroad companies stopped, for a time, all transportation of passengers and freight on many roads, and filled the country with alarm. Riots occurred at Reading, Scranton, Pittsburg, Chicago and St. Louis. At Pittsburg property to the amount of several millions of dollars was destroyed. During 1878 and 1879 the lower Mississippi valley was ravaged by yellow fever, and great numbers perished with the dread disease in New Orleans, Vicksburg, Memphis, and smaller places, although the Howard Association, as well as sisterhoods and clergymen, nobly devoted themselves to the care and relief of the sick. A majority of Congress, during Hayes' administration, was elected by the Democrats, and many cases of disagreement occurred between the legislative body and the executive, several bills being vetoed by the President, who, in 1879, called an extra session to pass the annual appropriation bills. One of the bills vetoed by the President was that to prevent the further immigration of natives of China. During the excitement on this subject in California, many acts of violence were perpetrated, and many Chinese left the State and became scattered through the country. A new treaty with China at last removed some of the difficulties.

In 1880 the Republicans nominated and elected General James A. Garfield, his opponent for the Presidency being General Winfield S. Hancock. A strong effort had previously been made in the Republican party to nominate General Grant, who had made a tour of the world, and been received with great distinction in Europe. The election of 1880 was a close one, the vote of New York, which had for years been Democratic, deciding the contest in favor of the Republican candidate. The elections for Congress also showed a reaction in favor of the Republicans. The nomination of Garfield, however, had caused a split in the ranks of the Republican party, the supporters of the third term aspirations of General Grant, commonly known as "Stalwarts," feeling deeply their failure to nominate him. This opposition to the President reappeared after he had begun his administration, and an open rupture between him and the Stalwart leaders followed. While this was at its height, a political fanatic, named Charles Jules Guiteau, conceived the idea that he would restore unity to the party by removing the President, thus throwing the administration into the hands of Vice-President Arthur, who was a Stalwart, and had received the nomination as a concession to that faction. July 2, 1881, Guiteau lay in wait for the President at the railway station at Washington, and shot him as he was on the point of departing from the city upon a vacation. The wounded President died September 19, at Long Branch, N. J., and was succeeded by Vice-President Arthur. The assassin Guiteau was tried, convicted and sentenced to be hanged, the execution taking place in the jail building at Washington.

After Mr. Arthur's accession to power the Democrats, in the general elections of 1882, came to the front and carried so many of the Congressional districts as to secure them a large majority in the Forty-eighth Congress, which assembled in December, 1883. Interest in the final session of that Congress settled largely upon their action in regard to the tariff, a modification of which was very evidently looked for by the people. In 1884 an unsuccessful attempt was made to re-adjust the tariff, with a view to reducing the surplus in the treasury and securing a more equitable distribution of taxation. The defeat of the measure was largely due to the Democratic majority in the House, who desired to enter the Presidential campaign unfettered by promises. Two unsuccessful treaties were negotiated during the same period. The first, with Mexico, was approved by the Senate, but failed to go into effect because of the refusal of the House to provide the legislative measures necessary to secure its operation. The other treaty, with Spain, was killed in its early stages. Negotiations for a new extradition treaty with Great Britain and her colonies were also begun.

The Presidential campaign of 1884 was bitter and aggressive. James G. Blaine, of Maine, the Republican candidate, was defeated by Grover Cleveland, of New York, the nominee of the Democratic party, who received the support of many dissatisfied Republicans; and in 1885, for the first time in twenty-four years, a Democrat was installed in the White House. President Cleveland took the helm of state with the motto of "Reform," and the conservative spirit displayed in his administration of the office of chief magistrate of the republic rendered it satisfactory to all classes.

General Benjamin Harrison was nominated by the Republicans and elected to the presidency in 1888. In 1889 North and South Dakota, Montana and Washington were admitted into the Union; Idaho and Wyoming were admitted in 1890, and Oklahoma was opened to settlers in the latter year. In 1890 the McKinley protective tariff bill was passed by Congress and signed by the President. Active preparations are now in progress for the opening of the World's Columbian Fair in 1893.

The country was never in a more prosperous condition generally than at present. The statistical department of this work speaks volumes for the growth and rank of the Union in all those things which make a nation great.


125
120
115
110
105
100
DOMINION
OF
CANADA
UNITED STATES
MEXICO
PACIFIC OCEAN
Cape Flattery
Mt. Olympus
Cape Disappointment
Cape Foulweather
Umpqua R.
Cape Blanco or Orford
Crescent City
Klamath R.
Humboldt Bay
Cape Mendocino
Mendocino
Clear Lake
Bodega
Oakland
SAN FRANCISCO
Santa Cruz
Monterey
San Luis Obispo
Pt. Conception
Sta. Rosa
Sta. Cruz
Sta. Catalina
San Nicholas
S. Clemente
Pt. Loma
Todos Santos Bay
Cape Colnett
Cape d Pt. S. Quentin
Guadalupe
Rosario
Pt. S. Antonio
Cape Blanco
Sebastian Vizcaino Bay
Cedros Ist.
C. S. Eugenio
B. St. Christoval
Abreojos Pt.
Ballena Bay
Pt. S. Domingo
S. Juanico Lagoon
Sa. Catalina
Cape S. Lazaro
Magdalena Bay
S. Margarita Isl.
Todos Santos
Cape Palmo
Cape S. Lucas
Pulmas Bay
Isabel I.
Las Tres Marias Is.
Pt. Mazas
SCALE OF MILES.
0 50 100 150 200 250 300 350
45
40
35
30
25
20
West
38
33
28
23
Mt. Rainier
Mt. Baker
Mt. Shasta 14,440
Mt. Hood
Mt. Jefferson
Mt. Pitt
Mt. Diablo
Mt. Whitney
Fremont Peak 13,576
Bear Hills
Riding Mountain
Duck Mountain
Swan Hills
Peace River
Athabasca
Lesser Slave L.
Lake Athabasca
Great Slave Lake
Great Bear Lake
Great Fish R.
Mackenzie R.
Peace R.
Slave R.
Liard R.
Yukon R.
Pelly R.
Stikine R.
Fraser R.
Columbia R.
Snake R.
Lewis R.
Clark Fork
Missouri
Yellowstone R.
Powder R.
Platte R.
Arkansas R.
Red R.
Rio Grande
Colorado R.
Gila R.
Green R.
Grand R.
Bighorn R.
Wind R.
Big Horn Mts.
Rocky Mts.
Sierra Madre
Sierra Blanca
Sierra Nevada
Sierra Nevada de Mexico
Sierra Madre Occidental
Sierra Madre Oriental
Sierra de Durango
Sierra de Chihuahua
Sierra de Parras
Sierra de Mapimi
Sierra de Sta. Rosalia
Sierra de Sta. Eulalia
Sierra de Sta. Clara
Sierra de Sta. Ana
Sierra de Sta. Barbara
Sierra de Sta. Cruz
Sierra de Sta. Maria
Sierra de Sta. Monica
Sierra de Sta. Ynez
Sierra de Sta. Lucia
Sierra de Sta. Rosa


Greenwich
90
85
80
75
70
65
CANADA
Cat Lake
Red House
Lake St. Joseph
Lake
Lake Woodan
Ft. Wallaton
Lake Superior
Batchewana
Sault St. Marie
Superior
Mille Lacs
Ashland
Marquette
Michigan
Huron
Green Bay
Wisconsin
Madison
Milwaukee
Racine
Chicago
Galena
Dixon
Illinois
Springfield
Peoria
Indiana
Indianapolis
Fort Wayne
Ohio
Columbus
Cincinnati
Kentucky
Frankfort
Lexington
Louisville
Tennessee
Nashville
Memphis
Arkansas
Little Rock
Alabama
Montgomery
Mobile
Georgia
Atlanta
Augusta
Savannah
Florida
Tallahassee
Jacksonville
St. Augustine
Gulf of Mexico
Tropic of Cancer
Yucatan
Cape Catoche
Alacran Reefs
Campeachy Bay
Galveston
Mouths of the Mississippi
Pensacola
Apalachicola
Cape San Blas
Cedar Keys
Bayport
Tampa
Espiritu Santo or Tampa Bay
Charlotte Harbour
Oyster Bay
Cape Romano
Cape Sable
Florida Bay
Key West
Dry Tortugas
Marqueses Keys
Florida Channel
Havana
Matanzas
Colorados Reef
Cape S. Antonio
I. de Pinos
Trinidad
Cape Canaveral
Mosquito Inlet
Gulf Stream
Bahama Channel
Great Abaco
Little Abaco
Providence
Eleuthera
San Salvador or Cat Islands
Watlings Isl.
Rum Cay
Crooked I.
Samana Cay
Long I.
Andros Islands
Bahama Bank
Acklin I.
Mariguana
Caicos
Little Inagua
Great Inagua
Bay de Nipe
Old Bahama Channel
Cape Maysi
Cape Haytien
Port au Prince
Jamaica
Cape Tiburon
Cape Morant
Cape Gracias a Dios
Bay de Honduras
Roatan
Bonacca
Truxillo
Cape Honduras
Gulf of Honduras
Cape Corrientes
Bay de Chetumal
Bay de Honduras
Cape Catoche
Cape Antonio
Cape Francis
Cape Blanco
Cape Carnero
Cape Romain
Charleston
Georgetown Bay
Long
Wilmington
C. Fear
Unslow Bay
C. Lookout
Cape Hatteras
Pamlico Sound
Albemarle Sound
Norfolk
Hampton Roads
Chesapeake Bay
C. Charles
C. Henlopen
Delaware Bay
C. May
Atlantic City
Philadelphia
Trenton
Lancaster
Harrisburg
Pittsburgh
Wheeling
Virginia
Richmond
Fredericksburg
Washington
Baltimore
Annapolis
Cumberland
Hagerstown
Gettysburg
Pennsylvania
New York
Brooklyn
Long Isl.
Newport
Cape Cod
Nantucket Isl.
Boston
Portsmouth
Portland
Bath
Augusta
Yarmouth
Bay of Fundy
New Brunswick
Fredericton
Houlton
Bangor
Quebec
Montreal
Ottawa
Kingston
Toronto
Lake Ontario
Rochester
Syracuse
Albany
Hudson
Utica
Lake Erie
Buffalo
Niagara
Cleveland
Detroit
Lansing
Grand Rapids
Chicago
Milwaukee
Green Bay
Lake Michigan
Sault St. Marie
Lake Superior
Thunder B.
Michipicoten
Nipigon
Hannah
Big L.
Lake Nipigon
Lake Mistassinie
Hudson's Bay Co.
Godbout
Jeremy H.B. Co.
Seguenay
Chicoutimi
Lake St. John
Grand Bay
Dalhousie
Bathurst
Chatham
Miramichi
Chaleur Bay
River St. Lawrence
Gaspe
Anticosti
Labrador
Lake Temiscaming
Grand Lake
Three Rivers
Berthier
Nicolet
Richmond
Lake Nipissing
Mattawa
Pembroke
Arnprior
Vaudreuil
Perry Sound
Hanburton
Prescott
Gananoque
Belleville
Cobourg
Port Hope
Whitby
Oswego
Rochester
Syracuse
Albany
Utica
Elmira
Hornellsville
Buffalo
Niagara
Lake Erie
Port Stanley
Goderich
Southampton
Collingwood
Penetanguishene
Georgian Bay
Manitoulin Isl.
Lake Huron
Saginaw
Bay City
Port Huron
Sarnia
London
Detroit
Toledo
Sandusky
Youngstown
Mansfield
Zanesville
Cincinnati
Marietta
Parkersburg
Charleston
Point Pleasant
Huntington
Ironton
Maysville
Portsmouth
Lexington
Frankfort
Louisville
Danville
Bowling Green
Hopkinsville
Clarksville
Jonesborough
Knoxville
Nashville
Columbia
Shelbyville
Memphis
Huntsville
Decatur
Florence
Corinth
Holly Springs
Vicksburg
Jackson
Natchez
Baton Rouge
New Orleans
Pascagoula
Mobile
Pensacola
Montgomery
Selma
Tuscaloosa
Birmingham
Gadsden
Rome
Atlanta
Athens
Macon
Columbus
Augusta
Milledgeville
Savannah
Brunswick
Albany
Thomasville
Tallahassee
Jacksonville
Gainesville
Orlando
Tampa
Susannah
Lake Okechobee
Cape Canaveral
Mosquito Inlet
St. Augustine
Cape Florida
Bahama Channel
Great Abaco
Little Abaco
Providence
Eleuthera
San Salvador or Cat Islands
Watlings Isl.
Rum Cay
Crooked I.
Samana Cay
Long I.
Andros Islands
Bahama Bank
Acklin I.
Mariguana
Caicos
Little Inagua
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Cape Maysi
Cape Haytien
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Jamaica
Cape Tiburon
Cape Morant
Cape Gracias a Dios
Bay de Honduras
Roatan
Bonacca
Truxillo
Cape Honduras
Gulf of Honduras
Cape Corrientes
Bay de Chetumal
Bay de Honduras
Cape Catoche
Cape Antonio
Cape Francis
Cape Blanco
Cape Carnero
Cape Romain
Charleston
Georgetown Bay
Long
Wilmington
C. Fear
Unslow Bay
C. Lookout
Cape Hatteras
Pamlico Sound
Albemarle Sound
Norfolk
Hampton Roads
Chesapeake Bay
C. Charles
C. Henlopen
Delaware Bay
C. May
Atlantic City
Philadelphia
Trenton
Lancaster
Harrisburg
Pittsburgh
Wheeling
Virginia
Richmond
Fredericksburg
Washington
Baltimore
Annapolis
Cumberland
Hagerstown
Gettysburg
Pennsylvania
New York
Brooklyn
Long Isl.
Newport
Cape Cod
Nantucket Isl.
Boston
Portsmouth
Portland
Bath
Augusta
Yarmouth
Bay of Fundy
New Brunswick
Fredericton
Houlton
Bangor
Quebec
Montreal
Ottawa
Kingston
Toronto
Lake Ontario

THE DOMINION OF CANADA.

THE Dominion of Canada, now a semi-independent confederation of provinces subject to the British Crown, has an interesting history which reaches back to within a very few years of the discovery of America by Columbus. The French sea captain Jacques Cartier, in 1534, planted the standard of Francis I. of France upon the shores of New Brunswick, and in later voyages he discovered the St. Lawrence River. Attempts at colonization were made, but none were very successful until the time of Samuel de Champlain, when the city of Quebec was established, and the foundation laid of the empire of New France. His explorations were ably followed up by the Jesuit missionaries who were sent out later by the French Government, and the names of Fathers Joliet, Marquette, La Salle and Perrot, who first saw the Great Lakes and the Mississippi River, are indissolubly linked with the story of early discovery in North America. Cruel wars with the Indians constitute the leading feature of interest in early Canadian history, each of the leading claimants of North American soil —England and France—employing the willing savages to carry destruction into the settlements of the other. Directly resulting from this cruel policy was the massacre of Lachine, in which the Iroquois, at the instigation of the English, fell upon the French settlements in the neighborhood of Montreal, and slaughtered their inhabitants, and which caused the cruel reprisals of Schenectady and Salmon Falls. During the frequent wars between England and France, the latter's Canadian colonies became more than once the object of English attack, but it was not until September, 1759, that the citadel of Quebec fell before the gallant English General Wolfe, and with it the French tenure of Canada, which was called the Province of Quebec, divided into three districts and placed under the direction of a Governor appointed by Great Britain. During the war of American Independence, the Americans, finding that the Canadians would not join the revolution, invaded Canada, but were unable to hold the country on account of their failure to capture the city of Quebec.

After the close of the war a great many persons from the English colonies settled in that portion of Canada lying north of Lake Ontario, which, upon the separation of the province in 1791, became known as Upper Canada, the eastern province taking the name of Lower Canada. Dissensions arose in both provinces over questions of government, but the war of 1812 united Canada in defence against a common invasion, in which the Canadians showed a patriotism and valor very creditable for so young a country. After the war, the same causes of dissension still existing, the old quarrels were renewed and the disaffection finally culminated in separate rebellions in each of the provinces. In Upper Canada a popular agitator named Mackenzie attempted to set up the republic, and in 1837 gathered a body of armed followers, who marched against the capital, Toronto, where they were defeated. More serious disturbances were caused in Lower Canada, when, under the leadership of Louis Papineau, the French Canadian "patriots" collected in masses on the Richelieu, and were not dispersed until after severe conflicts, in which several hundreds were slain. The union of the two provinces was decided upon by the home Government as a remedy for the troubles complained of, and this measure was accomplished in 1841, the new Constitution giving Canada one legislature instead of two. Under it the country progressed rapidly in population, commerce and general prosperity. About 1861 a strong party feeling arose between the two provinces over the claim for representation by population made by the inhabitants of Upper Canada, who, having largely outgrown the lower province in numbers, desired that their representation in Parliament should be proportionately larger. The Lower Canadians would not agree to any change of the Constitution in accordance with this plan, and the political struggle was growing dangerously bitter, when the confederation of the various British provinces in America, with local government for each, was suggested as an available remedy. The provinces of Canada, afterwards known as Ontario and Quebec, Nova Scotia and New Brunswick, accepted the proposed union. Newfoundland and Prince Edward Island rejected it. The matter was left with the British Government, which, in 1867, conferred the Constitution under which the Canadians now live, as well as the name Dominion of Canada. Since then the confederation has been enlarged by the admission of the Hudson Bay Company's Northwestern territories in 1870, now known as Manitoba and the Northwest Territories; of British Columbia in 1871, and of Prince Edward Island in 1873.

To the vast majority of Americans the country to the north of the international boundary line is a *terra incognita*, of which less is known than of the small revolutionary States of Central America. Of Mexican affairs the people of the

United States have sufficient reminders to spur interest or promote enquiry, in its biennial revolutions and military dictatorships, but of the quiet, progressive 5,000,000 of people owning the 3,500,000 square miles comprising the Dominion of Canada we know but little, and apparently care less.

However much it may be ignored, it is still an undoubted fact that a great nation is rapidly assuming consistency and form in that country. National sentiment and feeling have been developed, and now the habitants and *bourgeois* of Quebec vie with the agriculturists, manufacturers and tradesmen of Ontario and the Maritime Provinces in priding themselves upon being Canadians. Already they complain of being held in leading-strings by Great Britain, and the wish is generally expressed that Canada should have the appointing of its own Governor-General, the power of negotiating foreign commercial treaties, and that the slight ties now binding the Dominion to the Colonial Secretary's office in London be yet further loosened, until the political connection, now merely nominal, ceases to exist even in name. The very presence of Sir Chas. Tupper as High Commissioner at the British Court, with functions possessed by the representatives of independent powers, is a tacit claim by the Dominion of the privileges of a sovereign people.

ITS VAST AREA.

The Dominion, extending from the Atlantic to the Pacific oceans and from the United States boundary line to the Arctic seas, has a larger area than Europe, and even exceeds the United States exclusive of Alaska. Territory, however, does not of necessity imply a correspondence in greatness, wealth or power, and any speculations based entirely upon such data must prove fallacious. In order to form anything like a just estimate of the importance of the country the state of the settled and cultivated portions must be considered.

Canada proper, consisting of the provinces of Ontario and Quebec, containing more than three-fourths of the population of the Dominion, is 1,000 miles long, with an average breadth of 230. It has an area of 450,000 square miles, or 310,000,000 acres. That portion of it included in Ontario may be considered the garden of Canada, both as to climate, soil and the variety of productiveness of its agricultural exhibits.

POPULATION.

The people of Ontario are very different from their French neighbors on the other side of the Ottawa, and are as noted for real American enterprise, industry and progressiveness as those are for the opposite. In 1825 the number of inhabitants in Ontario (at that time Upper Canada) was 158,027. In 1852 the number had reached 952,004, and at the census of 1891 it was 2,112,989. The growth of the cities is also remarkable. Toronto in 1826 had only 1,677 inhabitants, and in 1854 it numbered 40,000, and now it contains 181,220 people. Hamilton, within ten years, from 1844 to 1854, quadrupled its population, and its increase since, if less rapid, has been remarkable.

In 1875 the population of the entire Dominion was 4,000,000; in 1881 it was about 4,400,000, and now it numbers 4,829,411. The material progress of the country has been on an equally rapid scale. Canada exports horses, cattle, sheep, butter, cheese, poultry, eggs, fruit, wheat, flour, barley, oats, beans, and other produce each year to the value of $40,000,000 to $45,000,000. The money value of the fisheries in 1889 was $17,655,256. The foreign trade is largely with the United States and Great Britain, the balance being exchanged with European countries, the West Indies, South America, Australasia, China and Japan. The exports for 1890 were as follows: To Great Britain, $48,353,694; United States, $40,522,810; France, $278,552: Germany, $507,143; Spain, $69,788; Portugal, $207,777; Italy, $81,059; Holland, $1,042; Belgium, $41,814; Newfoundland, $1,185,739; West Indies, $2,719,141; South America, $1,551,887; China and Japan, $61,751; Australia, $471,028; other countries, $695,924. Total, $96,749,149. Total imports for home consumption, $112,765,584, of which $77,106,286 were dutiable goods and $35,659,298 free goods.

The revenue of the Dominion for 1890 was $39,879,925, of which $23,968,954 was from customs; $7,618,118 from excise; $2,357,388 from post-office; $2,357,388 from public works, including government railways; $1,082,271 from interest on investments, and $220,141 from Dominion lands.

The expenditure on account of consolidated fund was $35,994,031, of which $9,626,841 was for interest; $1,308,847 for civil government; $709,784 for administration of justice; $932,187 for legislation; $466,115 for lighthouse and coast service; $286,315 for mail subsidies and steamship subventions; $1,107,824 for Indians; $328,893 for fisheries; $120,548 for geological survey; $153,308 for arts, agriculture and statistics; $1,287.013 for militia and defence; $1,972,501 for public works; $3,904,922 for subsides to provinces; $3,074,470 for post-office; $4,362,200 for railways and canals; $873,400 for collecting custom's revenue; $164,047 for ocean and river service.

CANADA PACIFIC RAILWAY.

One of the most important factors in the prospective future advances of the country to a high condition of material progress and industrial wealth will be, undoubtedly, the Canada Pacific Railway. The route through the Dominion is, in a certain sense, preferable to that which connects the Atlantic and Pacific in our country. It is said by competent authorities to be shorter by over a thousand miles in connecting Europe with Asia. Passing close to Lake Superior and traversing the watershed which divides the streams flowing toward the Arctic seas from those which have their exit southward, the route, though presenting serious engineering difficulty, was more easy of construction than the Union Pacific. The effect of the completion of this road can scarcely be estimated at present, as it is opening up for settlement a vast region abounding in valuable timber, coal and other material products, and well suited for grazing and the growth of grain. Construction on the Canadian Pacific was

first commenced under the immediate supervision of the Government, but this plan was not found to work well, and shortly after the change of Government, in 1878, the new Ministry handed over the work of construction to a syndicate, granting to them money and land bonuses and exclusive rights on a monopoly of traffic for twenty years from the time of the completion of the road. The road was opened for traffic in 1886. In 1890, 12,821,262 passengers and 20,787,469 tons of freight were carried; the earnings amounting to $46,843,826, and the expenses being $32,913,350.

The settlement of the Northwest Territory along the line of the railway is proceeding at an unprecedented rate. Indeed, there is nothing to be at all compared with it unless it is the rapidity of opening up in some of the Western States. Free grants are given to actual settlers, which, with an inexhaustible soil, should be a sufficient attraction for emigrants from Europe. But of this class the Canadian Northwest country has so far attracted no considerable number. Of the 44,000 emigrants arriving in Manitoba and the Northwest in one year fully three-fourths were from Ontario and other parts of Canada.

NATURAL PRODUCTIONS.

There are extensive coal fields in the Valley of the Saskatchewan and at Edmonton, but so far they have not been worked to any extent. When capital has been directed into this channel, a cheap supply of coal can be secured, and one of the principal defects of that section of the Dominion will be removed.

The length and severity of the winter in Manitoba and the contiguous territory is also a serious obstacle to their settlement. Winter often begins in October, and continues until about the end of April, after which the weather changes rapidly, and the chilling, freezing atmosphere becomes soft and warm, with the southern winds sweeping over the interminable plains. Vegetation after this becomes so rapid as to be almost incredible, and in less than four, and occasionally only three, months after the seed has been sown, abundant crops of wheat, barley and oats can be harvested.

With all its defects, it is a magnificent country, and it requires no great powers of prevision to foresee in it the home of millions of free, prosperous and intelligent people.

Winnipeg, the leading city of the Northwest, has sprung up as if by magic, and is a very different place from the hamlet visited by General Wolseley and his troops, on the occasion of the Riel disturbance, a number of years ago. It has now a population of 25,642, and for some time the boom in real estate was such that city lots were selling at a higher price than in Toronto. Many other cities now exist in embryo in that vast region, and with a liberal, wise policy on the part of the Government, the success of the Northwest is certain.

In the other sections of Canada, Ontario especially, the condition of the farming population has been entirely changed within the past twenty years. The log shanties of the squatter have been changed to elegant farm-houses of stone, brick and frame. Frame barns have taken the place of the open log structures that so poorly protected the crops of the pioneers, and wire and picket fences surround the steadings instead of rails. Farm-houses now contain all that is requisite for comfort, with many of the elegancies of life added, and in many will be found not only a piano or parlor organ, but also a young lady quite capable of rendering music by note. Education has also become generally diffused, and it is but rarely that a person can be met with who cannot read and write.

That the Dominion is more prosperous now than ever it has been before, will scarcely be questioned by those familiar with its present and past conditions, and that it has now entered upon a new and vast phase of its progressive development, under the most auspicious circumstances, cannot for a moment be doubted.

GOVERNMENT OF THE DOMINION.

The executive power of the Dominion is vested in a Governor-General, who is appointed by the British Government, and exercises authority in the name of the Queen. His advisers constitute the Privy Council, whom he appoints and removes, subject to the convenience of the lower house of Parliament. The military command is vested in the Queen. Parliament, consisting of an upper and a lower house, known respectively as the Senate and House of Commons, controls legislation. Senators, who are appointed for life by the Governor-General, on the recommendation of the Privy Council, are 80 in number, apportioned as follows: Quebec and Ontario, 24 each; Nova Scotia and New Brunswick, 10 each; British Columbia, 3; Manitoba, 3; P. E. I., 4; N. W. Ter., 2. The House of Commons has 215 members—Ontario, 92; Quebec, 65; Nova Scotia, 21; New Brunswick, 16; British Columbia, 6; Manitoba, 5; P. E. I., 6; N. W. Ter., 4. A redistribution of memberships occurs after each decennial census, with the understanding that Quebec shall never have less than 65. All appropriation bills must originate in this house, to which the Privy Council is responsible, it representing the views of the political party which is in the ascendancy. Bills passed by Parliament may be vetoed at any time within two years. The seat of government is at Ottawa. The Dominion Parliament controls exclusively the currency, postal service, public debt, raising of money, regulation of trade and commerce, the militia, savings banks, marriage and divorce, criminal law, navigation and shipping, bankruptcy, and all subjects not specially assigned to the local legislatures. The latter have the right to levy direct taxes, and to borrow money for provincial purposes, the management of public lands, public works lying within the province, municipal institutions, prisons, hospitals, asylums and charities, and generally matters of a local or private character. With a few minor exceptions, all Judges are appointed by the Dominion Government. There is a general court of appeal, possessing powers similar to that of the United States Supreme Court, and which passes upon the constitutionality of laws passed by the provincial legislatures.


NORTH AMERICA
Scale of Miles.
0 100 200 400 600 800 1000
Longitude West from Washington.
ARCTIC OCEAN
PACIFIC OCEAN
ATLANTIC OCEAN
GREENLAND
ICELAND
BAFFIN BAY
HUDSON BAY
DOMINION OF CANADA
UNITED STATES
MEXICO
GULF OF MEXICO
CARIBBEAN SEA
SOUTH AMERICA
WEST INDIES
Time Longitude in Hours from Noon
Space Longitude from the Meridian
Arctic Circle
Tropic of Cancer
Behring Strait
East Cape
Cape Lisburne
Pt. Barrow
Cape Prince of Wales
C. Bathurst
C. Brewster
C. Chudleigh
Cape Farewell
Cape Race
Cape Sable
Cape Cod
Cape Hatteras
Cape Flattery
Cape Mendocino
Pt. Conception
Cape San Lucas
C. Corrientes
C. Canaveral
C. Sable
C. S. Antonio
C. Catoche
C. Gracias a Dios
Tropic of Cancer

MEXICO.

NO foreign country is attracting such close attention from the people of the United States just now as Mexico, sometimes familiarly alluded to as "the sister republic." Bounded on the north by the United States, on the south by Guatemala, on the east by the Gulf of Mexico and Caribbean Sea, and on the west by the Pacific, it occupies the tapering southern extremity of the North American continent—a region of mountain table-lands, rich in mineral wealth and agricultural resources, which, having lain for ages comparatively undeveloped, are now beginning to feel the impulse of a new civilization supplied from the United States, whose capitalists are building railroads in different parts of the country. The history of the country begins—no one knows when. Ages before the coming of the Spanish conquerors the settlement of the Mexican valley had been accomplished by Indian tribes who are said to have come from the north, the last of these being the Aztecs, who founded a city, established a monarchial government, enforced civil and criminal laws, kept a standing army, and cultivated the arts and sciences, their skill in the working of metals and their profound knowledge of astronomy being attested by venerable relics which are extant at the present day. About the only dark feature in this pleasing picture of prehistoric civilization and culture is that provided by their religious observances, which included human sacrifices, the practice being so common that the observance of certain days caused the immolation of thousands of victims. Such were the accomplishments of the wonderful people whom De Cordova met in Mexico when he discovered it in 1517. Two years later Fernando Cortez effected a landing upon Mexican soil at a spot where the city of Vera Cruz now stands. Here he burned his ships to give a disaffected portion of his command to understand that nothing was left them but obedience, after which he marched into the interior. On his way he fought several engagements with the natives, and finally arrived at the City of Mexico, where the Aztec Emperor, Montezuma, received him with apparent kindness. Fearing treachery, Cortez caused Montezuma to be seized and conveyed to the Spanish quarters. Cortez' conquests were delayed by the opposition of the Governor of Cuba, who sent a party to seize him and his staff and send them back to Cuba. The brave Spaniard turned the tables upon his pursuers, vanquishing them and taking their leader, Narvaez, prisoner. Montezuma, after a long imprisonment; consented to acknowledge Spanish supremacy, but the Aztecs declined to submit so easily, and, making a final effort, compelled Cortez to retreat. He returned, however, a year later, and, after a series of battles, reached once more the City of Mexico, which he captured, August 13, 1521, after a siege of seventy-five days. The other provinces fell in succession before the invader, and for nearly 300 years subsequently Mexico remained in subjection. The government which the Spaniards first inaugurated was known as "Audiencia," with a President and four Auditors, but the measures of this body soon proved so harsh and arbitrary that the colony complained loudly of their oppression. A viceregal government was inaugurated in 1535, which lasted undisturbed for nearly three centuries.

Events in Europe at the opening of the nineteenth century shaped the history of Mexico. The uprising of 1810 is thus graphically described by Mr. John A. Dillon, a journalist whose thorough knowledge of Mexican affairs, no less than his eminent literary attainments, makes him peculiarly qualified to treat the subject:

"The revolution was long in coming. Shut off as it was from the world, Mexico could not help noting that the power of Spain had grown weaker and weaker, until at last the rough hand of Napoleon pushed the feeble Bourbon from the throne. The latent fires of revolution broke forth on the 15th of September, 1810, in the village of Dolores, near Guanajuato, where a curate named Manuel Hidalgo set up the *Grito de Dolores*, as it is called in Mexican history, or the 'call of Dolores.' What the call meant was little known, either to him who started it or to those who heard it. It meant anything but a republic to Hidalgo; it meant the cause of religion, and loyalty to some Mexican sovereign. To the Indians who heard it, it meant death to the strangers, the *Gachupines*, as they called the Spaniards.

"Then was started the most *bizarre* and motley revolution in history, outshaming Jack Cade. Swarms of ragged and swarthy Indians gathered around the priest, armed with sticks and stones and knives and clumsy pikes. They swarmed down to Guanajuato in thousands and tens of thousands, and the slaughter of Cortez was repeated on their defenceless bodies. Cannon and musket tore their ranks in vain, for they rushed up to the loaded cannon's mouth and stuffed in their battered straw hats and ragged *serapes*, to keep the balls from coming out. By sheer force of numbers they destroyed the troops, and then in savage triumph sacked the city of their brothers.

"Brief and sad was the career of the soldier-priest. Under the banner of the Virgin of Guadalupe he led his hordes from Guanajuato down to Valladolid, and thence to Queretaro, and in six weeks had reached the mountain of Las Cruces, within thirty miles of the capital. Here the Viceroy gave him battle, and here again the ragged hordes rushed on the batteries and killed every man behind them, only three officers of the Viceroy's army of 3,000 escaping.

"Then fear came on the victor for the unknown power of a city such as he had never seen the like of. He came within sight of Mexico, lingered there for a month, and then turned to retreat. A bloodhound was set on his trail in the person of General Calleja. The fugitive rebels passed back through Guanajuato, and the bloodhound Calleja followed them and cut to pieces 14,000 men, women and children in the city. In his report he said that he had them hacked with knives and swords, because gunpowder was very dear, and he did not want to put the Government to the needless expense of using ammunition.

"On the 17th of January Hidalgo reached the place called the Bridge of Calderon, and there his last battle was fought and lost. He fled toward our frontier, but his commanders rebelled, and one of them, Elizondo, delivered the whole band up to the Government on the 21st of March, 1811. It is needless to say that they were shot, and their heads were afterward exposed in iron cages on the castle wall of Guanajuato."

The population was made up of four classes—the Spaniards of European birth; the Mestizos, or half-breeds, the result of union between the Indians and whites; the Creoles, who were the pure-blooded descendants of the original Spanish settlers, and the pure-blooded Indians. The last-named had experienced but little change of condition under the Viceroys, and were still subject to the payment of tribute and held in a sort of life-long tutelage. Degrading restrictions weighed upon them from which only their nobles were exempted. The Creoles, as proud of their origin as the native Spaniards were of their birth, were treated contemptuously by the latter, and denied all part in the government, or even high command in the army. Many of them had amassed great wealth, and while titles and other empty honors were conferred upon such, the Government deemed it imprudent to allow them a share of the administration of public affairs. This treatment was resented by the Creoles, and open rebellion would have been gladly availed of by them, had they not dreaded that, at such a turn of affairs, an uprising of the Indians and half-breeds would occur, and they and the native Spaniards be together overcome and destroyed. While the revolution of 1820 was going on in Spain, which lost Ferdinand his throne, the Mexicans agitated in favor of a liberal government, and Don Augustin Iturbide, a native Mexican officer of rank, who had served with distinction in quelling the earlier uprisings, inaugurated a second and successful revolution, which resulted in the declaration of Mexican independence, February 24, 1821. His authority obtained the national recognition; in August he established a regency, and May 19, supported by his army and his followers, in the City of Mexico, he was proclaimed Emperor. December 2, 1822, Santa Anna, supported by other chiefs, proclaimed the Republic at Santa Cruz, and March 19 Iturbide abdicated. Shortly afterwards he was ordered into exile, and in May, 1823, he left Mexico for London.

The Constitution which Congress formulated October 4, 1824, was modelled after that of the United States, and established in Mexico a republic with nineteen States and five Territories. The first President was Don Felix Fernando Victoria, during whose administration Iturbide returned to the country and was arrested and shot. At the second presidential election the candidates were Generals Padraza and Guerrero. The former was elected, but Guerrero instituted a revolt, and seized the presidency in 1829. That year the Republic received the recognition of the United States, and defeated an attempt of the Spaniards to recapture the country with an army of 4,000, who were sent back to Havana. General Anastasio Bustamante, who had assisted in the expulsion of the Spanish invaders, declared against Guerrero, and deposed him. Intrigues and revolts followed in quick succession, Santa Anna coming to the front April 1, 1833, who, after banishing Bustamante and several other political leaders, instituted an administration of sweeping reform. Laws were passed suppressing the convents and abolishing the payment of tithes, and measures discussed looking to the appropriation of church estates and their application to extinguishing the national debt. These failed to prove popular, going further than the people cared to follow. Insurrections followed, and troubles which led, in 1835, to the abrogation of the Constitution which had been adopted in 1824, and the formation of a consolidated republic, which took the place of the confederation of States. Santa Anna possessed dictatorial power, and the revolution was endorsed by the whole country except Texas, whose citizens declined to accede to the centralization of power. Santa Anna then invaded the State with an army, which was destroyed, and Santa Anna was captured. Bustamante became President, but Santa Anna, after a trip to Washington, where he conferred with President Jackson, was released, and returned to Mexico. Another period of chronic revolution soon set in, a dictatorship was established for a while, and in 1844 constitutional government was resumed, with Santa Anna at its head. He was banished, however, and Herrara happened to be the President at the time war was declared against the United States after the annexation of Texas.

The American arms were successful, and Mexico lost, in addition to Texas, New Mexico and Northern California, when peace was declared, in February, 1848. Santa Anna was recalled in 1853, and for the fifth time elected President. He attempted now to secure the position for life, with the right to name his successor, and this led to another revolution in 1855, when Alvarez deposed him and became President. He resigned in favor of Comonfort, who gained the opposition of the ecclesiastical party by his promotion of a law, which was adopted in 1856, for the sale of church lands and the freedom of religious belief. Revolutions followed, and in 1857 Congress promulgated, and the President was forced to accept, a very democratic Constitution.

In the following year Benito Juarez, Chief Justice of the Supreme Court, claimed the legal succession to the presidency, but was defeated by the incumbent, Zuloaga, and driven to Vera Cruz, where he established himself as Constitutional

President. His claims were strengthened by their acknowledgment by the United States, and, after defeating General Miramon in several engagements, he entered the capital in triumph, January 11, 1861. His administration was noted for the reforms which he carried out, and which gained him the love of the Mexican people. Among the most important of these were the appropriation of church property to the service of the State, by which more than three hundred millions' worth of real estate was saved to the people; making marriage a civil contract; the abolition of ecclesiastical tribunals and perpetual monastic vows; and, finally, the complete separation of Church and State. Much as the people enjoyed their liberties, the Church party could not brook so great a curtailment of their property and prerogatives, and they resolved upon the destruction of Juarez' Government. Their opportunity was not long wanting. Subjects of Spain, France and Great Britain having sustained alleged losses and injuries in Mexico, for which Juarez declined to give satisfaction, these three powers, at a convention held in London, October 31, 1861, decided to send a joint expedition to Mexico to demand it. In December of that year, General Prim, commanding a Spanish detachment from Cuba, landed at Vera Cruz, and a month later French and British troops followed. A settlement being effected with Spain and Great Britain, the forces of these powers were withdrawn from the country. The French army remained in Mexico, declared war against Juarez, and captured the City of Mexico June 10, 1863, President Juarez and his Ministers retiring to San Luis Potosi. June 24 a regency was formed, and July 8 an assembly of notables was convened to decide upon Mexico's form of government and resolved that it should be a hereditary monarchial government under a Roman Catholic Emperor. The Archduke Maximilian, of Austria, accepted the crown. Juarez and his republican supporters retired to El Paso, where they remained from September, 1865, to the beginning of 1866, when, the United States having secured the withdrawal of French troops from Mexico, they assumed the aggressive. Maximilian was captured and shot, together with his Generals, Miramon and Mejia, June 19, 1867, three days after Juarez had re-entered the City of Mexico. The work of national reconstruction was at once commenced. An attempted revolution by Santa Anna was quelled and its instigator captured and exiled. In 1871 Juarez was again elected, his opponents being Porfirio Diaz and Sebastian Lerdo de Tejada, the latter of whom, on the death of Juarez, July 18, 1872, became President.

Although a brilliant scholar and statesman, Lerdo misunderstood the sentiments of the Mexican people, mistook the spirit of the age, and seemed to oppose the material progress of the country, endeavoring to stem the tide of reform and advancement and opposing the railroad movement. General Diaz seized this opportunity, and in 1876 organized a revolution. After a series of victories and defeats, the revolutionary chieftains met the Government forces at Texcoac, and came out victorious after a sanguinary conflict. During his short administration Diaz began the work of regeneration, and initiated the railroad movement, which was ably conducted onward by his successor, General Gonzales, elected to the presidency in 1880, and again by Diaz, elected 1884, re-elected 1888.

Mexico is a federal republic, and the General Government is administered according to the provisions of the Constitution of 1857, which was twice overthrown and restored, and which was considerably amended in 1873–87. A President is chosen by indirect popular suffrage every fourth year. Both houses of Congress and the Supreme Judiciary are elected in like manner. The Senate and Supreme Judiciary are elected for terms of six years, and the Representatives for two years. The States have local constitutions, with elective Governors and legislatures.

CENTRAL AMERICA.

UNDER the name of Central America are included the republics of Guatemala, Honduras, San Salvador, Nicaragua, Costa Rica, and the territory known as British Honduras. In 1502 Columbus discovered the Eastern shore of Central America, and shortly afterward the Spaniards took possession of it, retaining it until 1820, when it rebelled and many of the States which then composed it were annexed by Mexico. Three years afterwards was formed the Central American Confederation, but in 1839 Nicaragua withdrew, as did also Costa Rica in 1840 and Guatemala in 1847. In 1872 Guatemala, Costa Rica, San Salvador and Honduras became united, forming the Central American Union, the object of the union being the maintenance of peace in the several States and of the republican form of government. Since this was accomplished, the several States have generally enjoyed an immunity from the internal discords which frequently plunged them into civil wars.

CUBA.

CUBA, the greatest of Spain's colonial possessions, was discovered by Columbus while on his first voyage, but it was not until 1511 that Velasquez conquered the natives. Eight years later the present capital, Havana, was founded, which in 1538 and 1554 was destroyed by the French. Near the close of the sixteenth century the cultivation of the sugar-cane was begun, and slavery followed. In 1762 the English captured Havana, and took possession of the island, but restored it to Spain in the following year. Cuba's brightest and happiest era began with the rule of Las Casas as Governor-General, who arrived at the island in 1790. Under him the island's resources were developed rapidly, old restrictions were removed, and the natives, grateful for their new liberties, developed a strong affection for their foreign rulers. In 1808, when Napoleon deposed Ferdinand of Spain, they remained loyal to the Spanish crown. Since that time Spanish misrule has caused Cuban discontent, and when the French republic was proclaimed in 1848 the question of annexation to the United States was openly advocated, and President Polk offered Spain one million dollars for the island, which was declined. Ten years later a proposition to purchase the island for thirty millions was submitted to the United States Senate, but nothing was done in the matter. Four years previously the American Ministers at London, Paris and Madrid had drawn up what is known as the Ostend Manifesto, which urged that Cuba should belong to the United States, and that, if Spain declined to sell it, it should be wrested from her. In 1868 the discontent of the natives culminated in open rebellion, which soon spread over the entire island. In 1869 Cespedes, who had headed the uprising, was elected President, and Manuel Quesada was given command of the forces. Offers from the United States to settle the strife amicably, and for the cession of the island, were rejected by Spain, which continued to mass troops upon the island to quell the insurrection. Peace overtures were made to Cespedes in 1873, on the condition that Cuba should become a Spanish republic, but they were declined. Eventually the Spanish arms prevailed, but not until over 13,000 Cuban soldiers had been killed in battle and over 43,000 prisoners slain, in accomplishing which horrible result more than 150,000 men had been sent over from Spain and over twenty millions of dollars expended. Peace has been nominally restored, but the native Cuban still groans under the foreign yoke, and sighs for the free institutions of the land of the free, from which he is separated by a very few miles of ocean.

As a province of Spain, Cuba is governed by a Governor-General, who is appointed by the Crown for a period of from three to five years, is subordinate only to the Spanish King, and has despotic power as the head of the civil, military and ecclesiastical jurisdictions. No municipal government is allowed, although town councils prevail in the cities.

SOUTH AMERICA.

FOR obvious reasons, no history of South America as a continent need be given. It will be readily gleaned by the reader from the following histories of the various countries contained within its boundaries. It may be stated, however, that the table-land of Bolivia was the nucleus of the earliest civilization in South America. From there came the Inca rulers of Peru and Ecuador, which places, together with Colombia, provided the Spanish explorers with the only evidences of culture and civilization. These and the Portuguese made easy conquests wherever they went in South America, and established colonies, which, however, declared their independence early in the present century, and obtained their freedom after fighting for it bravely.

BRAZIL.

NOTABLE as the largest of the divisions of South America; as the youngest of the republics of the Western hemisphere, Brazil's history is of peculiar interest to the historical reader. Pedro Alvarez de Cabral, who had been sent out by King Emmanuel of Portugal to follow up the discoveries of Vasco da Gama, discovered the land in 1500, and the richness of its forests in dye-woods soon attracted the attention of commerce. A Governor of the territory was appointed in 1549, who founded the present capital of Rio de Janeiro. Numerous attempts were made by the Dutch and French to take the country, but it was retained almost in its entirety by Portugal, whose King, on the occasion of Napoleon's invasion of his country in 1808, fled to Brazil, and virtually transferred the monarchy to his colonial possession. Seven years later Brazil was made a kingdom and its ports thrown open to the world, and in 1821 the King went back to Portugal, leaving behind him his son, Dom Pedro, as regent. A revolution, or rather a transition, occurred in the same year, and in 1822 Brazil was proclaimed an independent empire, and Dom Pedro was invested with the imperial crown. A Constitution was granted in 1824, when the home Government acknowledged the independence of the young empire. In 1826 Dom Pedro became King of Portugal by the death of his father, and he resigned the European crown to his daughter. In 1831, after long and harassing wars with adjacent countries, the Emperor abdicated in favor of his son, Dom Pedro II., then but six years old, and the country was ruled by a regent until he came of age, in 1841.

The imperial dynasty continued until November 15, 1889, when, by declaration of the principal citizens of the national capital, the Republic of the United States of Brazil was founded. The revolution was peaceful, the Emperor was kindly treated, provision was made for his support, and he was transferred to his kindred in Portugal; he has recently died. A provisional government was formed, upon the model of that of the United States of America, under the presidency of Marshal Deodoro da Fonseca, and on February 24, 1891, a new constitution was voted by the Constituent Assembly, by which the President's term of office is fixed at four years. Everything went on much as usual; the Imperial officials became Republican; most of the ambassadors who had represented the Empire abroad continued at their posts to represent the Republic. Some few important changes were made; the Church and the State were separated, civil marriages only are recognized, and education is secularized. A second revolution broke out in 1891, by which President Fonseca was unseated; and on November 23, 1891, General Floriano Peixoto was elected President.

CHILI.

IN 1533 the Incas of Peru lost their control over Chili, and a few years later the Spaniards occupied the country, the city of Santiago being founded by them shortly after their arrival. A treaty was established with the natives in the early part of the eighteenth century, by which boundary lines were established and the rule of the Spanish Viceroy acknowledged. A preliminary movement to the declaration of independence was made in 1810, when the Chilians deposed the Captain-General and placed the executive power in the hands of a committee of seven. War between the mother country and the colony commenced in the following year, and two years later the latter was entirely under the control of the royalist troops. Nothing daunted, the colony, in 1817, rebelled again, and, after a severe struggle, defeated the royalists and secured their independence. At first the Government took the shape of a directorship, but confusion prevailed until 1833, when a new Constitution, whose formation was begun two years previously, was adopted. Under the amended form of government an improved condition of affairs was established, which has endured up to the present day.

Allusion has been made, under the head of Peru, to the war in which that country was conquered, but a fuller mention of it may be afforded here, as the event is one of great importance in connection with South American history. In 1879


SOUTH AMERICA
Scale of Miles.
0 100 200 400 600 800 1000
Longitude West 90 75 60 45 30 from Greenwich.
Longitude 13 West 2 East 17 32 28 47 62 from Washington.
CARIBBEAN SEA
WEST INDIES
CUBA
JAMAICA
HAYTI
PORTO RICO
TRINIDAD
CENTRAL AMERICA
Pt. Gallinas
Rio Hacha
Santa Martha
Carthagena
Chagres
Aspinwall
Panama
Porto Bello
Antioquia
Medellin
Ibague
Buenaventura
Maracaibo
Valencia
Varinas
Bolivar
Puerto Cabello
CARACAS
Barcelona
Cumana
VENEZUELA
Queenstown
GEORGETOWN
New Amsterdam
PARAMARIBO
CAYENNE
BRITISH GUIANA
DUTCH GUIANA
FRENCH GUIANA
UNITED STATES OF COLOMBIA
BOGOTA
Esmeraldas
Equator
QUITO
Riobamba
Cuenca
Guayaquil
ECUADOR
G. of Guayaquil
C. Blanco
Payta
Eten
Nauta
Yavary
Japura
Barcellos
Rio Negro
Mouth of Amazon River
Para R.
Maripa
Obidos
Santarem
Para
Maranham
Parnahiba
Fortaleza
Aracati
Cape St. Roque
FERNANDO DE NORONHA I.
Natal
Parahiba
Pernambuco
Cape St. Augustine
Aracaju
Sergipe
Bahia
Porto Seguro
Caxamarca
Truxillo
Caxatambo
LIMA
Callao
CHINCHA IS.
Pisco
Cuzco
Arequipa
Islay
Tacna
Arica
PERU
Lake Titicaca
La Paz
Cochabamba
SUCRE
Santa Cruz
Potosi
BOLIVIA
Trinidad
Matto Grosso
Diamantina DIAMOND DISTRICT
Cuyaba
Goyaz
Coimbra
Miranda
Porto Imperial
Paraguay
Tocantines
Madeira
Topoya
Xingu
Tapajos
Balsamas Falls
S. Antonio
Borka
Borba
Coary
Teffe
Rio Negro
Rio Purus
Rio Ucayali
Rio Beni
Rio Madre de Dios
Rio Mamore
Rio Guapore
Rio Paraguay
Rio Tapajos
Rio Xingu
Rio Tocantines
Rio Parnahiba
Rio Paranagua
Rio Francisco
Rio Pardo
Rio Grande
Rio Parana
Rio Tiete
Rio Paranapanema
Rio Iguassu
Rio Uruguay
Rio Negro
Rio Colorado
Rio Salado
Rio Desaguadero
Rio Pilcomayo
Rio Bermejo
Rio Dulce
Rio Primero
Rio Segundo
Rio Tercero
Rio Quarto
Rio Cuarto
Rio Sauce
Rio Chadileuvu
Rio Atuel
Rio Diamante
Rio Tunuyan
Rio Mendoza
Rio Tercero
Rio Desaguadero
Rio Colorado
Rio Negro
Rio Chubut
Rio Deseado
Rio Gallegos
Rio Santa Cruz
Rio Coig
Rio Gallegos
Rio Chico
Rio Grande
Rio Valdivia
Rio Imperial
Rio Toltem
Rio Maule
Rio Itata
Rio Nuble
Rio Laja
Rio Biobio
Rio Tolten
Rio Valdivia
Rio Bueno
Rio Maullin
Rio Puelo
Rio Yelcho
Rio Palena
Rio Aysen
Rio Baker
Rio Pascua
Rio Serrano
Rio Penas
Rio Gallegos
Rio Chico
Rio Grande

hostilities began between Chili and the allied republics of Bolivia and Peru, growing out of rival territorial claims, and claims to guano beds and mineral deposits. Chili insisted that, having done more than either of the others to repel the enemy, she was entitled to generous treatment. When the war came she had an army of 22,000 and a navy of ten small steamers and two powerful iron-clads, which gave her a vast advantage over the enemy. The war was conducted with great spirit and intrepidity, the naval conflicts between the two powers being especially remarkable for the ferocious courage displayed on both sides. In the spring of 1881 Callao and Lima were taken, and the Chilians were masters of the situation. By the terms of peace Chili exacted from the conquered countries the absolute annexation of the territory containing all the nitrates and the great bulk of the guano, the occupation of other territory for a period of years, and of the Loblis islands as long as there is any guano on them; also the payment of a monster war indemnity.

In 1891 a civil war resulted in the overthrow and death by suicide of President Balmaceda. An incident of this war was the escape from San Diego, California, with a cargo of arms, of the Chilian steamer Itata; which was pursued and finally surrendered to the United States. Shortly after this a murderous attack was made upon unarmed American sailors in the streets of Valparaiso. The United States demanded explanation and reparation, and the matter was left to diplomacy for settlement.

PERU.

IN 1524, Pizarro made a visit to the coast of Peru, but it was not until 1531 that he returned with intention of conquest. His aim was aided at the time by the divided condition of the country, for the possession of which rival Incas were struggling. With less than 200 men in his command, the Spanish adventurer made the friendship of one of the Incas, whom he took prisoner. Promising to release him for a ransom, he acquired from the natives metals and valuables worth nearly eighteen millions of dollars, after which he treacherously slew his prisoner. After subjecting the country to misrule, accompanied by atrocious cruelties, Pizarro was assassinated in 1541. Spanish rule became firmly rooted, however, and in the early part of the eighteenth century the colony of Quito was separated from Peru and added to the adjoining colony of New Granada. Another partition of the colony resulted in the formation of the separate governments of Venezuela, Guatemala, Caracas, Cumana and Chili. Peru was the last of the colonies to rise against Spain, but in 1821 patriots from Chili and Buenos Ayres entered the country and drove the Spaniards from the capital. In 1824 the dictatorship was assumed by Bolivar, who, two years later, drove the Spaniards from their last stronghold, after which he formed a republic called Bolivia of the southern and southeastern portions of the colony, and resigned the dictatorship. Revolution in Peru occurred in 1826, and in place of the Constitution prepared by Bolivar, a new one, similar in form to that of the United States of America, was adopted. Civil war followed, but peace was finally brought about by General Castilla, who became President in 1845 and ruled the country until 1851, when, a vicious government succeeding him, another revolution occurred. Complications with the United States arose in 1858, through the seizure of several American vessels by ships belonging to the revolutionary forces, but in 1873 the American claims for damages were settled. Castilla's star once more shone in the ascendant, and the country enjoyed good government until 1862. In 1867 a Constitution was adopted and a treaty of commerce and friendship was made with Chili. After revolutions, assassinations and other exhibitions of anarchical tendency, the country came, in 1879, into conflict with Chili. With the Bolivians as allies, the Peruvians made a gallant stand, but in 1881 the Chilians defeated and dispersed the Peruvian army and drove the President from the capital.

After this disastrous war with Chili, which deprived Peru of territory and the income derived from the guano deposits, the Republic receded from public notice. Recent surveys, however, show the existence of rich deposits on the coast of the mainland, and in 1889 an arrangement was concluded by the Government for the cancellation of of its external debt, in pursuance of which the State railways, the guano, the celebrated silver mines of Cerro de Pasco, and vast tracts of land are vested in the Peruvian Corporation.

THE UNITED STATES OF COLOMBIA

AND OTHER COUNTRIES OF SOUTH AMERICA.

ONE of the most enlightened and progressive countries in South America is the United States of Colombia. In 1536–7 the country was conquered by the Spaniards, who held it until 1809, when a war of independence, lasting eight years, gave its inhabitants their liberty. At that time the country, then known as New Granada, was united with Ecuador and Venezuela, but a separation took place in 1829, and the United States of Colombia, as at present organized, was formed. Civil wars desolated the country from 1860 to 1885, but peace has prevailed generally since then. A Constitution was promulgated in 1886 by which the executive authority is vested in a President elected for six years, while the legislative power lies in a Senate consisting of three members from each State, and a House of Representatives, each of the nine States sending a member for every 50,000 of its inhabitants. The States have each their own legislature and executive officer.

VENEZUELA was discovered by Columbus in 1498, and a settlement was effected by the Spaniards in 1520, who held the country until 1823, when the Venezuelans, who had declared their independence in 1811, secured it after a severe struggle of eleven years' duration. It separated from New Granada and Ecuador in 1880. Many civil wars have devastated the country, which has hardly yet settled down to the peaceful enjoyment of the liberties guaranteed by the Constitution of 1864, by which Venezuela became a federal republic, whose executive power is vested in a President holding office for four years. Legislative power lies in a Senate and House of Representatives, whose Deputies are named by corresponding State bodies.

ECUADOR was, many years previous to the coming of the Spaniards, the seat of an Indian monarchy, whose King was overthrown in the tenth century by Indians, who established a government and ruled the country until it was conquered in the latter part of the fifteenth century by Huaqua Capac, Inca of Peru. His sons divided the country between them and quarrelled, the war resulting in the victory of the one of them to whom the province of Quito had fallen. He reunited both countries, but in 1532 Pizarro seized and slew the Inca, and Spanish rule prevailed until 1809, when the colonists arose in rebellion and obtained their independence in 1820. Ecuador became an independent State in 1830, and civil war followed, lasting twenty years, after which came war with Peru. Tranquillity followed, and prosperity has of late rewarded the country's efforts in the direction of commercial and social advancement. The Government is a republic, with the executive in the hands of a President, who is elected for four years. Legislative power rests in a Senate and a Chamber of Deputies, who have respectively eighteen and thirty members.

PARAGUAY was discovered in 1530, and settled in 1536 by the Spaniards, whose missionaries found the natives mild and peaceful of disposition and well disposed to receive the truths of Christianity. In 1811 the country declared for independence, and was for twenty-nine years kept under the rule of Jose Gaspar Rodriguez Francia, who sustained during the whole period a policy of non-intercourse with foreigners. The country was accessible only by way of the river Parana, and ingress and egress by it were so thoroughly stopped that during the long period of his rule no foreigners whatever were allowed to enter, and only half a dozen were permitted to leave. Such shipping as was in the river at the time this policy was inaugurated stayed there, rotted and fell to pieces. This unique condition of affairs was only ended by Francia's death, when the dictatorship was seized by Antonio Lopez, who held it under the title of President until 1862, when he died, and was succeeded by his ambitious son, Francisco Solano Lopez, who set himself up as protector of the "equilibrium" of the La Plata region. War with Brazil, Uruguay and the Argentine Republic ensued, which lasted for five years, closing in 1870, when Lopez was killed and peace restored. At the mercy of its conquerors, Paraguay ceded a portion of its territory to Brazil, and agreed to pay in all an indemnity so enormous that it is now bankrupt and with no prospect of regaining the financial prosperity it enjoyed previous to the war. Executive power rests in a President, who is elected for four years, and the legislative function in a Congress composed of a Senate and Chamber of Deputies

GUIANA, consisting of three divisions, belonging respectively to Great Britain, France and the Netherlands, has no specially interesting historical reminiscences. British Guiana, the largest and most valuable of the three possessions, was

acquired by Great Britain in 1803. It is ruled by a Governor appointed by the Crown. French Guiana was acquired in 1704. It is not a very valuable possession, and its main use to France is as a penal settlement. Dutch Guiana, which lies between the others, is a rich country, and is ruled by a Governor-General and Council.

Formerly known as Buenos Ayres, the ARGENTINE REPUBLIC was discovered in 1512, and twenty-three years later its settlement began, as a part of the Peruvian domain. Such it remained until the end of the fifteenth century, when the viceroyalty of Buenos Ayres was formed by the consolidation of the land now divided among the Argentine Republic, Paraguay, Uruguay and Bolivia. War for independence from Spanish rule began in 1809 and ended in 1812, with the revolutionary arms in the ascendant. In 1817 a Dictator was elected, subject to the limitations of a provisional constitution, and three years later a democratic government was inaugurated. After a war with Brazil the Argentine provinces in 1831 formed a confederation, and the power fell into the hands of General Rosas, commander of the army, who exercised it despotically until 1852, when he was deposed, at which time the province of Buenos Ayres seceded from the confederation. It returned, however, later, and by a recent treaty the confederation was increased by the acquisition of all of Patagonia, except a strip along the Straits of Magellan, and all of the island of Terra del Fuego east of the Andes. Subsequent to the deposition of Rosas, the confederation engaged in a number of foreign wars, and suffered many internal broils; but since 1890 peace has been enjoyed to a fair extent. A President, who is elected for six years by the provincial representatives, holds the executive power. Legislative power rests in a National Congress, which comprises a Senate of twenty-eight members and a House of fifty-four Deputies. The provinces, fourteen in number, are ruled by Governors, who are elected for fourteen years.

URUGUAY has a history even more bloody and bellicose than any other of the South American dominions. It was first settled by the Jesuits in the early part of the seventeenth century, but Spain and Portugal both claimed possession of it later, and after much fighting the former succeeded in making its claim good in 1724. About a century later Brazil annexed it, but it revolted and secured its independence in 1828. Since that time until quite recently revolution continued to be the normal condition of the country, and at times civil war was conducted with such ferocity that the intervention of foreign powers became necessary as an act dictated by feelings of humanity. Although in theory a republic, with a President and a Senate and House of Delegates, the real power lies with whatever General happens at the time to have the control of the military.

BOLIVIA, named after Simon Bolivar, sometimes called the "Liberator of South America," for the leading part which he took in helping the efforts made by the different States in the direction of independence, was held by the Spaniards until 1825, when it became independent. Since then revolt has almost entirely occupied the attention of its people. In the war with Chili it was virtually annihilated, the conditions of peace imposed being such as to keep the country in everlasting subjection. A President enjoys the executive power, and legislative functions are vested in a Senate and House of Representatives, elected by the people.

EUROPE

GREECE has the honor of being in the van of European civilization and power, but in the seventh century before Christ a rival sprang up in Italy, which in the course of time attained such vigor that Greece at last was humbled to the condition of a Roman province. From 200 B.C. to 100 A.D. the Roman Empire enjoyed its greatest glory, extending its power until almost all Europe came under its rule. From the unconquered portion to the north, however, poured legions of barbarians, who overran the Roman Empire and laid upon its ruins the foundations of modern Europe. What are known as the dark or middle ages of European history lasted from the fifth to the fifteenth century, and these are pregnant with historic interest, the extension of the Christian Church, with the accompanying development of rational civilization, being accomplished during those centuries. Many valuable inventions made during this period assisted in the beneficent work, among the most important of which was that of printing. Among the most advanced of European nations during this time were the republics of Italy, which led the world in commerce, the arts and civilization. Such is a general summary of the continent's history up to the end of the middle ages. Fuller facts regarding individual national progress during and subsequent to this period will be found under the proper heads elsewhere.

GREAT BRITAIN.

THE island now known as Great Britain was known to the ancients previous to the date at which its written history begins, the Phœnicians, Carthaginians and Massilians having visited its shores in their trading vessels. It was not, however, until the year 55 B.C. that its real history commenced, with the conquest of the country by Julius Cæsar, and the establishment there of the Roman rule, which lasted until A.D. 420, when the pressure of Rome's enemies caused the withdrawal of the legions from Britannia—the name which Cæsar gave to the island in the stead of Albion, by which it had formerly been known. The departure of the Romans left the British a prey to the Picts and Scots, whose incursions, aided by internal dissensions among the British chiefs, reduced the country to a condition of anarchy. One of these chiefs, seeking assistance to enable him to cope with the northern invaders, effected an alliance, in A.D. 446, with Hengist, a prince of the Jutes, who, with Horsa, his brother, after driving back the Picts and Scots, turned his arms against the Britons, whom they overcame in a series of sanguinary battles. In 457 Hengist declared himself King of Kent, and in the course of time the conquest of England was fully accomplished by the Saxons, Jutes and Angles, who established three Saxon, one Jutish and four Anglian kingdoms. About the year 830 the ruling power was consolidated, and Egbert, ruler of the Saxon kingdom, Wessex, became King of all England. During his reign began the invasions of the Danes, who, gaining increased power after the death of Alfred the Great in 901, held the country from 1017 to 1041, when the crown reverted to the Anglo-Saxons and to Christianity, which had already been introduced in the person of Edward, surnamed the Confessor. His reign was merely nominal, the country being governed by Danish and English Earls, and when he died one of these, Harold, Earl of Wessex, seized the throne, which was soon wrested from him by William, Duke of Normandy, in France, who defeated him in the battle of Hastings, and established the Norman line of Kings. The Norman invasion was followed by the division of the lands among William the Conqueror's followers, as feudal lords, the foundation thus being laid of a rich and powerful landed aristocracy, which has continued to successfully defend its ascendancy in spite of all opposition. As years went by the Normans and Saxons became merged into one people.



QUEEN'S CASTLE, BALMORAL.

In the court, French manners and the Norman-French language prevailed, while the Saxon tongue remained in use among the laboring classes; but the writings of Chaucer fixed the English language, which, however, had received a strong impression from the invaders. The reigns of the Norman and Plantagenet monarchs were a series of contests between the Kings and the Barons, and the concessions which the latter wrung from royalty constitute some of the strongholds of British liberty. One of the most important of these was the Magna Charta, which the Barons forced King John to sign at Runnymede in 1215, and which secured to the English people two great rights: first, that no man should suffer arbitrary imprisonment; second, that no tax should be imposed without the consent of the National Council. In 1265 King Henry III. was imprisoned by the Barons, and the first English Parliament was convened; and though, in the same year, his son Edward defeated the Barons and restored his father, the latter was glad to conciliate his foes, and confirmed the great charter. During Edward's reign Wales was conquered and annexed to England, and Scotland was menaced, but preserved her integrity through the skilful generalship of William Wallace and Robert Bruce. The shaping of the English Parliament was greatly advanced during this reign, the National Council taking its modern form by the separation of the greater Barons from the tenants-in-chief, who thereafter took part in Parliament only through representatives. In 1295 the first session of the Commons in a separate chamber was held, and in 1296 was passed the statute providing that no tax should be imposed which was not sanctioned by the Barons, Bishops and Burgesses. Popular government made another step forward in the reign of Henry IV., the first King of the house of Lancaster,

in the enactment of the statute granting the parliamentary right of election for counties to all freeholders, and the recognition of the two houses of Parliament as bodies possessing distinct privileges, which were not to be interfered with by each other. The reform of church abuses, which had been inaugurated by Wycliff, was opposed by Henry IV., while Parliament passed the act for the punishment of heretics, which for two centuries, almost, was made the instrument for the affliction of unutterable cruelties. The aspirations of the house of York to the throne led to the sanguinary civil conflicts known as the Wars of the Roses. The Yorkists triumphed in 1461, and in Henry VII.'s marriage the two houses were joined together. The Tudor dynasty thus formed produced some remarkable reigns. Henry VIII., who in the early part of his reign earned the title of "Defender of the Faith," for his loyalty to the Pope, broke with Rome later, and assumed the title of "Head of the Church," and in 1535 the Papal authority was set aside by act of Parliament. In the reign of his daughter, Queen Mary, a devout Catholic, a strong effort was made to undo the work of reformation in England. The legislation of Henry VIII., and of the regency which succeeded him, was repealed, and many who opposed the new deal were burned at the stake. Dying without issue, Mary was succeeded by her Protestant half-sister, Elizabeth, who restored the supremacy of the Church of England, which about this time accomplished the reform of the service books of the church, and of its doctrines, which resulted in the preparation of the thirty-nine articles, in substantially the same form as they exist at present. The nation was threatened in Elizabeth's reign by the Spanish Armada, which Philip II. of Spain fitted out for England's invasion, but which, overtaken by a storm, was dispersed, and its great vessels made an easy prey for the lighter and more manageable English ships. Under Elizabeth Ireland was subjected, commerce with India established, and colonies planted in America.

The Stuart family of Scotland succeeded that of Tudor, and with them culminated the struggle between royal prerogative and popular right. The power of the feudal Barons had already been destroyed, and the bulwark of British law and liberty now was the middle class. The Stuart monarchs, James I. and Charles I., by no means understood the spirit of their age, and their constant exercise of despotic power brought them in collision with the united trading and laboring classes. King Charles attempted to dispense with the Parliament, and ruled for many years without one, but in 1642 the people arose against him, and in 1645 the Roundhead (Puritan) army, under Oliver Cromwell, overthrew the Royalist forces. The King was imprisoned and executed, and Cromwell, declining the title of King offered him by Parliament, ruled the country as Lord Protector of the Commonwealth. Under this great man the power of England increased greatly. At his death, in 1659, his son, an amiable man of moderate capacity, succeeded him, but resigned his power in the following year. This paved the way for the return of the Stuarts in Charles II., a vicious monarch, whose reign saw further conflicts between the King and Parliament, which, however, in 1679, showed their opposition to his will, and passed the Habeas Corpus act. His brother and successor, James II., worked persistently for the overthrow of constitutional government and the establishment of despotic regal power with the Roman Catholic Church as the State religion, and fared no better than his predecessors, being forced to abdicate to make room for William of Orange, whose acceptance of the crown was made subject to limitations inspired by Parliament, which passed an act arranging for the succession, while the Bill of Rights guaranteed the liberty of the country. Under Queen Anne, the English armies under the famous Marlborough won splendid victories on the continent against France. In 1707 the union with Scotland was consummated. With George I., who succeeded her, came in the Hanoverian dynasty, during the early years of whose rule efforts were made to re-establish the Stuart line, whose hopes were finally crushed at Culloden in 1746. The reign of George II. was marked by the acquisition of India and Canada. England's colonial possessions were largely increased during the earlier years of George III., but later on the persistent attempts to tax the American colonists drove them to successful revolution and the formation of the United States of America. The intellectual brilliancy of the Parliamentary leaders of this epoch is one of its striking features, the destinies of the nation being in the hands of such men as Pitt, Fox, Burke and Sheridan. The successes of Napoleon in Europe alarming England, she joined with the other powers in a war whose object was to replace the Bourbons on the French throne. The prolonged conflict was ended by the battle of Waterloo in 1815, in which Napoleon was defeated by a British army under Wellington and a Prussian army under Blucher. During these wars England's victories at sea, under Admiral Nelson, constitute the brightest page in her naval history. In 1798 the Irish, assisted by the French, rebelled, but were subdued, and in 1801 occurred the passage of the act of union between Great Britain and Ireland. George IV., a regal profligate, succeeded him, and in the reign of William IV., who followed, was passed the first reform bill, which placed the political power in the hands of the people. Three years before his death, which occurred in 1837, the decree was ordered abolishing slavery from British territory. He was succeeded by the present sovereign, Queen Victoria, whose reign has proved one of the most remarkable, as well as beneficent, of all the British sovereigns. Born in London, May 24, 1819, she was only 18 years old at the time of her accession. In February, 1840, she was married to her cousin, Prince Albert of Saxe-Cóburg-Gotha, with whom she sustained very happy conjugal relations until his death, in 1861, since which time she has remained a widow. The earliest event of importance in her reign was the repeal of the Corn Laws in 1845. In 1847 a famine occurred in Ireland, which was followed by a large emigration from that country. The Chartist agitation followed in 1848, and in 1853 the Crimean war commenced, in which England and France allied themselves with Turkey against the encroachments of Russia. It lasted from January, 1854, until March, 1856, when the Russians, having lost the fortress of Sebastopol, which was the key to their position, consented to a peace. The next serious employment of the English arms was that provided in the suppression of the Indian mutiny, which occurred in 1857–8, after which England assumed direct control of affairs in that country. In 1868 the supplementary

reform bill was passed, and in 1870 the disestablishment of the Irish Church was accomplished. In the year following, the peaceful negotiation of the differences between the United States and Great Britain, caused by the acts of the rebel cruiser Alabama, resulted in an Alabama claims treaty. Amongst the minor wars of her reign were thoce against the Chinese, Abyssinians and Ashantees, the Afghanistans, Zulas and Boers, Egyptians and Mahdists, and Arabs. Great Britain is just now menaced by the defiant attitude of her Irish subjects, who, seeking to redress the wrongs which they have suffered, are in *quasi* rebellion against the Government. Assisted by political societies, whose ramifications extend to foreign countries where expatriated Irishmen have found homes, the plotters for Irish liberty are endeavoring, by acts of violence organized and accomplished in secret, to terrify the Government into granting the concessions they demand.

The Government of Great Britain is a constitutional monarchy. The executive function is vested in the sovereign, and the legislative in the Imperial Parliament. The succession to the throne is settled upon the descendants of Sophia of Brunswick, and no change in the "Act of Settlement" can be made without the consent of Parliament. The heir apparent assumes the title of "Prince of Wales." The Parliament consists of the sovereign, the House of Lords and the House of Commons, and an act to obtain the force of law must be passed by all three. Membership in the House of Lords is hereditary. There are 537 members, including the two Archbishops and twenty-four Bishops of the Established Church of England. The House of Commons has 670 members—495 for England and Wales, 103 for Ireland and 72 for Scotland. Of these, 9 represent the universities, 377 the counties, and 284 the boroughs, The number of Parliamentary electors in 1891 was 6,173,668; being 36,176 for the universities, 3,787,290 for the counties, and 2,350,202 for the boroughs. The members of the Cabinet Council are appointed by the sovereign, but responsible to Parliament, and consequently their appointment is virtually made by the party in the majority. The sovereign appoints the members of the Privy Council, the Lord Mayor of London being the only *ex officio* member, but public business is in reality conducted by the Cabinet Council. In Ireland the Crown is represented by a Lord Lieutenant.

IRELAND.

AT the present moment, on account of the strenuous effort the Irish are making to effect the liberation of their land, Ireland is commanding a great deal of attention. Christianity was introduced into the island in the fifth century, when St. Patrick, being taken a captive in war, was sold into slavery in Ireland, where he remained for five years. Twenty years later he returned there as a missionary, and for thirty years preached the truths of the gospel to its people, succeeding most remarkably in his mission as a Christian propagandist. From the eighth to the eleventh century was the period of Ireland's greatest comparative civilization. During this period she was far more advanced than England in learning and culture. Colleges flourished, and the arts were carried to a high degree of perfection. Unfortunately, while so well advanced in civilization, Ireland had not achieved what was at that time necessary for her salvation—a strong central government. On the contrary, it was divided up into a number of petty kingdoms, which had no secure bond of union. Hence, when the Plantagenet monarch of England, Henry II., made his raids in 1172, his conquest of the disunited country was a comparatively easy matter, taking into consideration the really warlike qualities of the Irish chiefs and Barons who ruled the land. The foothold thus gained was in the province of Leinster, and from that date England has asserted a fictitious claim to rule a people persistently unreconciled to any interference with home rule. It was under the Tudors, however, that the fate of the unhappy island was settled. There was no centralization in Ireland. Britain became great because the petty kingdoms were consolidated into one nation, while Ireland dwindled away and lost its splendid opportunity, through the calamitous influence of the tribe and the clan, in distinction from the country. For a long time the "English Pale," or the area of actual British rule in Ireland, was very limited. Henry VII. determined to extend it, but pursued his purpose only feebly. Henry VIII. was more intently bent on Irish subjugation, and under his reign nobles and people felt the crushing hand of a tyrant. In 1542 he assumed the title of King, instead of Lord of Ireland, by virtue of an act passed by the Anglo-Irish Parliament in 1541, and about the same time some of the native princes were induced to acknowledge him as their sovereign and to accept peerages. Since then his successors have never ceased to hold fast both the shadow and substance of Irish sovereignty. In order that the national sentiment might be suppressed, the language, dress, customs and laws of the country were prohibited. The fact that Henry was at war with the Pope made loyalty to Rome an expression of patriotism in Ireland. Very little favor was extended to the doctrines of the Reformation, either by the descendants of the old English settlers or by the native Irish, and when

the English Government sought to introduce it great dissensions were stirred up. When Mary came to the throne, and Protestantism lacked the support of the Government, it almost immediately melted away. She was not disposed to abandon the island to itself by any means, but her personal sympathies were with the Irish in the matter of religion. Elizabeth was in sympathy, of course, with the Protestantism of her father rather than the papacy of her sister; but she took a secular view of the Irish question, and under her the power of the British Crown was felt throughout the entire island. The old Celtic Constitution was rejected; the tribal authority of the chiefs was taken from them, and the tribal system of property set aside; English judges and English law were substituted for the old proceedings: the result of which, says Green, was that "the evicted natives withdrew sullenly to the lands which had been left them by the spoiler; but all faith in English justice had been torn from the minds of the Irishry, and the seed had been sown of that fatal harvest of distrust which was to be reaped through tyranny and massacre in the age to come."

Very shortly before Elizabeth's death occurred the famous insurrection of Tyrone, who invited the Spaniards to assist him; but they were all defeated in 1620. Repeated rebellion tried the temper of the Government, which, in the reign of James I., seized the province of Ulster and divided it among such of his Scotch and English subjects as chose to settle there. In 1641 occurred More and Maguire's rebellion, in which an endeavor was made to expel the Protestants from the island. From 1649 to 1656 the iron hand of Cromwell was laid upon the land. In the year of King Charles' execution, the Royalists being still strong and rebellious in Ireland, Cromwell went there in person as Lord-Lieutenant and Commander-in-Chief, and his measures were so cruel and sanguinary that the island was, in nine months, completely crushed. He left in charge of it his son-in-law, Ireton, who completed the island's subjection, and no disturbance of its tranquillity occurred until the revolution. The northern province, Ulster, was colonized by Scotch shortly after Cromwell's invasion. At the time of the revolution James II. received very generally the support of the Irish, while the Scotch and English colonists took the part of William and Mary. The struggle between oppressor and oppressed lasted for four years, and was ended by the bloody battle of the Boyne, fought July 1, 1690, and resulting in the overthrow of the Irish, who, two years later, were again in utter subjection. From this time on the British Government systematically sought to destroy the Irish national sentiment. Penal laws were passed which imposed terrible restrictions upon the Roman Catholic population, and rebellions were frequent. Backed by the "Volunteers," Henry Grattan secured a free Parliament and the partial abolition of the heavy restrictions on Irish commerce. It was mainly through this patriot's exertions and influence that the stringent pressure of the penal laws against the Roman Catholics was relaxed. He steadily opposed the idea of a legislative union of the countries, and in 1800 he was elected to fight in Parliament for Irish liberty. Two years previous the country, driven to desperation by oppression, had been in revolt, and the year that saw Grattan's election saw also the crushing out of the attempt to secure Ireland's liberty. Notwithstanding his brilliant advocacy of the Irish cause, the oppressors were in the preponderance in Parliament, and the union was consummated January 1, 1801. Since that time Ireland has not lacked for agitators to keep alive the national spirit and to fight for the amelioration of her condition. In 1829 the Catholic Emancipation act was passed, largely through the exertions of the great Daniel O'Connell, and later on a reform bill and a poor-law were enacted. About the middle of the present century a strong movement was on foot for the repeal of the union, and while it was in progress famine fell upon the land and whole counties were depopulated. In 1848 Smith O'Brien's abortive revolution was easily suppressed. More formidable since then have been the alternately secret and overt workings of the Fenian Brotherhood. Organized in 1859 in both America and Great Britain, it held a congress at Chicago in 1863 that attracted much attention. Two years later another was held in Cincinnati, which represented a constituency of 80,000. In 1866 an attempt was made to conquer Canada, and in 1867 several Fenian riots occurred in Great Britain. It has been urged that these aggressive movements accomplished nothing. Directly they may have failed of great success, but indirectly they proved of immense value to the Irish cause. By far the greater part of the population of Ireland hold the Roman Catholic faith, and their taxation for the support of the State Church was one of the leading causes of Irish discontent. It is not uninteresting to note that it was in 1869—two years after the first Fenian agitation—that the Episcopal State Church was disestablished and disendowed, and the endowment, except as used for annuities, dedicated to educational and other secular purposes. Important as was the



SACKVILLE STREET, DUBLIN.

concession, it did not satisfy the Irish people, who had placed national independence and autonomy as the goal of their combined struggles, and a powerful movement was inaugurated for securing reform in tenure of land and the relations of landlord and tenant. Under the lead of Mr. Parnell, Irish ideas as to the proper relation of Ireland to Great Britain were brought nearer to realization than they ever before were within the last 600 years. His policy was to compel attention to Irish wants by obstruction of parliamentary business. By speaking on every topic before the House, he wearied the English members into action on Irish affairs. His first demand was for fixity of tenure for farmers, fair rent, and free sale. This was secured in 1881. But having, in 1879, with Mr. Davitt, organized the Land League, with the object of inducing the tenant farmers to take a greater interest in the national movement, Mr. Parnell increased his demands upon the English Government and declared for Irish independence and a Parliament in Dublin. His arrest and imprisonment in Kilmainham jail, the outlawing of the League, and the assassinations in Phœnix Park, in 1882, were striking events of this period. Toward the close of 1885 Mr. Parnell's persistence was rewarded by Mr. Gladstone's submission, and a Home Rule bill was the result. The advent of the Tories to power, in 1886, prevented the immediate realization of Mr. Parnell's hopes, though he succeeded in extracting, even from the victors, legislation which placed Irish tenants in a position of advantage over other tenants in any part of the world. An alleged fac-simile letter, published by the London *Times*, representing Mr. Parnell as consenting to the Phœnix Park murder, was shown after a protracted trial to be a forgery. It was at this period that he reached the top of his career and the height of his popularity. The cloud thrown upon the Irish patriot's life by a divorce in 1890, in which Mr. Parnell figured as co-respondent, had important results for the Irish party, introducing dissension and causing ultimately Mr. Parnell's expulsion from the leadership at Mr. Gladstone's demand. Mr. Parnell died Oct. 6, 1891. In 1892 the party in Parliament numbered 30 Parnellites, against 54 anti-Parnellites led by Justin McCarthy.

Ireland is represented in the British House of Commons by 103 members, and in the House of Lords by 28 representative Peers, who are elected and hold office for life. Its executive consists of a Lord Lieutenant and Privy Council, nominated by the Crown. English rule is enforced throughout the country with the assistance of an armed military constabulary numbering over 12,000 men.

SCOTLAND.

PREVIOUS to the union with England, Scotland, as an independent country, had attracted considerable attention. In the middle of the ninth century the Scots acquired a predominance in North Britain by revolution. A lineal descendant of Ardan, a powerful prince who more than once successfully invaded the English borders, named Kenneth, claimed the British realm. Under his son, Malcolm II., the Scotch acquired the Merse and Teviotdale from the Earl of Northumbria. Malcolm III., who succeeded, had a long and prosperous reign, in which Scotland made great strides forward, both politically and socially. English customs were introduced, owing to his long residence in England and his marriage with an English princess, and the English language began to make headway on account of the large immigration from England which took place. During the succeeding reigns of Edgar, Alexander I., and David, who was a great reformer in both clerical and secular affairs, the English influence increased. One of the ablest and best of Scottish kings was Alexander III., who, by a treaty with Norway, added the Isle of Man to his dominions, together with other islands of the Western Sea. A dispute over the crown followed the death of his granddaughter in 1290, and the decision between the claimants, Baliol and Bruce, was left to King Edward I. of England, who entered the country with an army, deposed Baliol and instituted English government. A prolonged struggle for independence followed, in which the heroic deeds of Wallace and Bruce gained for the Scotch a deathless reputation for valor and patriotism. During succeeding generations the history of Scotland was one prolonged story of interminable civil and border warfare, and of occasional invasions from England. Amicable relations between the Crown and the nobles were first accomplished during the reign of James IV., whose gay and elegant court seduced the warriors from the field and left the peasantry to attend undisturbed to the peaceful and profitable occupation of husbandry. Fisheries were encouraged, a navy built and commerce promoted, while the King's marriage with Margaret, daughter of the Tudor Henry VII., laid the foundation of the union of the two kingdoms. Henry VIII. sought to conquer the country, and in the war which James IV. was provoked into declaring against him the Scotch navy was destroyed, and its armies defeated on Flodden Heights. The King was among the slain. His son, subsequently James V., was then a minor, and during the regency which ensued the country fell into a wretched condition. He married a daughter of the French Duke of Guise, the fruit of which marriage was the unfortunate Mary, Queen of Scots, whose son, James VI. of Scotland, became James I. of England, thus uniting the two countries. The overthrow of the Stuart family and other events which happened from the accession of James VI. to the English throne, down to ratification of the act of union by the Scottish Parliament in 1707, are told in the history of Great Britain given elsewhere. Scotland retained, on its admission to the union, its church system and its laws. It is governed by the Imperial Parliament, to which it elects 72 commoners.



VIEW OF EDINBURGH.

GERMANY.

WHEN Julius Cæsar was on his way of exploration through Europe, which led him through Gaul and into Great Britain, he avoided rather than sought to measure arms with the Germans, whose fighting he tasted of and then learned to respect. A conflict between the Romans and Germans was,



KING'S PALACE, BERLIN.

however, inevitable, and the freedom and independence of the nation was firmly established by Arminius, who crushed the invaders in the historic battle of Teutoberger, which occurred B.C. 9. About 500 years later, Clovis, moving westward, established the Frankish Empire, which, under the famous Charlemagne, reached from the Raab, in Hungary, to the Ebro, in Spain, and from the Eider, in the north, to the Tiber, in the south. The division and subdivision of the empire created numerous duchies and principalities, and the ruler over all was generally the one who was able to secure the influence of the clerical leaders. Wars for the possession of the imperial crown and changes of dynasty were frequent. The empire lasted until 1273, when Count Rudolph of Hapsburg began his reign as King, destroyed the power of the nobles and laid the foundation of the family which still reigns over Austria. In the reign of Charles V. the power of Germany was extended so that it included Belgium, Spain, the Netherlands, Austro-Hungary and Italy, and she became the ruling power in Europe. This reign was also remarkable for the beginning of the Reformation. In 1521, at the Diet of Worms, Luther made his famous defence; at the Diet of Speyer was made the formal protest of his supporters against decisions unfavorable to them, while at the Diet of Augsburg their creed was publicly announced. Religious dissensions occupied the country for about fifty years after the retirement of Charles V., in 1556, and in 1618 the Thirty-Years' War broke out. At first the Protestants were defeated, but under Gustavus Adolphus, King of Sweden, they rallied, and Germany was secured forever in her religious freedom by the peace declared at Westphalia in 1648. In 1675 the Elector of Brandenburg vanquished the Swedes at Fehrhellin and laid the foundation of the Prussian monarchy, the name of Prussia being assumed when Frederick I. was crowned King in 1701. Numerous wars occurred in the next one hundred years, and constant mutations occurred in the map of Germany. The young kingdom of Prussia, under the famous Fredericks, developed rapidly into a first-class power, and in the great wars, especially that which led to the downfall of Napoleon, her generals and soldiers gained many important victories. During the Napoleonic wars Germany lost a large portion of



HEIDELBERG.

her territory, fully half of it being lost by the Peace of Tilsit in 1806, when Napoleon formed the Rhenish Confederation under French protection, and the German Empire was formally dissolved. Subsequent to the return of the Bourbons

the affairs of Germany were regulated in accordance with a plan drawn up by Metternich, whose influence then predominated throughout Europe. In 1833 the Zollverein was established, an important event as being in the direction of a united Germany. The confederation of the German States was alternately swayed by Austria and Prussia. In 1849 Frederick William IV. of Prussia was tendered the imperial crown by the Diet of Frankfort, but declined to accept it. His successor, William I., early evinced a desire to rule in accordance with constitutional views, but when, in 1862, the Government declined to pass certain laws relating to the army, he created Bismarck Minister of State and instituted a violent reaction.

In the following year Prussia laid claim to the Danish duchies of Schleswig and Holstein, which Denmark disputed, and, war following, the Prussian arms were victorious and the two countries were annexed. This action was opposed by Austria, who sought to have them placed under the rule of a branch of the Danish royal family, and in June, 1866, war was declared against Prussia, whose splendidly organized army, armed with the needle-gun, which was at that time a novelty in warfare, completely routed the Austrians at Sadowa. Austria withdrew entirely from the German confederation and acknowledged the political and other changes which Germany had undergone at Prussia's hands. The work of German unification was now further advanced. The North German Confederation was formed, its Constitution, modified in parts, was made to cover the whole German Empire, and treaties were effected with the South German States. France, jealous of the growing power of Germany, became alarmed when she saw that the unity of her traditional foe in the East was fast being realized, and the relations of the two countries became day by day more strained. A conflict was inevitable, and the issue was furnished by the question of supplying a ruler for Spain, whose throne was at that time tenantless. The crown was tendered by the Spaniards to Prince Leopold of Hohenzollern, who declared his willingness to accept it. The French Government, hoping to gain a diplomatic victory of great political consequence, demanded of King William that he should command the Prince to withdraw his acceptance of the Spanish crown. This the King declined to give, and when the Prince himself renounced the crown the French Government demanded of William a declaration that he approved of the renunciation and that he would not in the future permit of the Prince's candidature. This William declined to give, and on July 19, 1870, France declared war against Prussia. In a very few days it became apparent that the haste with which the French diplomats had brought about the war was not warranted by the condition of the country's military and naval affairs. From the beginning it was apparent that, while the Prussian armies were in a high state of efficiency, those of France existed to a large extent only on paper, were poorly equipped and very defectively organized. The fight opened at Saarbrucken, where the French gained a slight advantage, but the defeats of Weissenburg and Worth completely changed the aspect of affairs. The French armies withdrew into France, and the German battalions streamed over the frontier, following up eagerly the advantages they had secured Bazaine, the French commander-in-chief, after conducting several unsuccessful battles, was locked up in Metz with a large army. The main body of the French army, led by Napoleon III. and commanded by Marshal MacMahon, sought to relieve Bazaine, but were checked at Sedan and overthrown. Napoleon surrendered and was sent in captivity to Wilhelmshohe.

The war should have ended here, as the German hold upon France was so complete that no hope was left to her. The Parisians, however, would not accept the situation. A provisional government was formed and the defence of the capital, pending the formation of a new army, decided upon. The Empress Eugenie escaped to England. September 19 the German armies invested Paris, the idea being to starve the city out, and January 26 the siege was raised and the Germans took possession. At Versailles, February 26, a preliminary peace was signed, by which Alsace and Lorraine were to be ceded and a war indemnity paid to the Germans. The peace was ratified by the French National Assembly, and Paris was evacuated. Thus it will be seen that the war which France waged against the unification of Germany resulted in its accomplishment. The treaties by which the unity was secured were concluded between Northern and Southern Germany in December, 1870, and January 18, 1871, while the victorious German armies were thundering at the gates of Paris, the King of Prussia was proclaimed Emperor of Germany as Kaiser Wilhelm I.

The Government of Germany is a limited monarchy. The German Empire is a confederation of sovereign States, with largely representative governments. Although the Emperor is limited in certain relations, he is given large power in others. By the terms of the Constitution, which bears date April 16, 1871, all the States of Germany form an eternal union for the protection of the realm and care of the welfare of the German people. In the King of Prussia, who bears the title of *Deutscher Kaiser* (German Emperor), is vested the supreme direction of the military and political affairs of the Empire. The Kaiser "represents the Empire internationally," and can declare war, if defensive, and make peace; can enter into treaties with other nations, and can appoint and receive embassadors. To declare war, if not merely defensive, he must have the consent of the *Bundesrath*, or Federal Council, in which body, together with the *Reichstag*, or Diet of the Realm, are vested the legislative functions of the Empire. The Reichstag represents the German Nation, and its members, 397 in number, are elective by universal suffrage and ballot for terms of three years. The Bundesrath represents the individual States, and its members, numbering 58, are appointed for each session by their respective governments. The Bundesrath and Reichstag meet in annual session, convoked by the Emperor. All laws must have a majority of both houses, and must be approved by the Emperor and promulgated by the Chancellor of the Empire.

CALIFORNIA

AUSTRIA-HUNGARY.

AUSTRIA'S early history will be found under the head of Germany. The Government under which the Austro-Hungarian Empire now exists will receive attention here. About the end of the eighth century Charlemagne founded a Margraviate in Lower Austria which, in 1156, became a Duchy, and three centuries later an Arch-Duchy. Maximilian II., son of Emperor Charles V., of Germany, became Emperor in 1564, with a dominion over Austria, Hungary and Bohemia. It was not until the eighteenth century that Austria came to the front as one of the great European powers, and attained a preponderating influence in the conduct of German affairs. In the year 1806 the reigning Emperor, Francis, renounced the title of Emperor of the Romans and became the first Emperor of Austria. In the seven years which followed, Napoleon worried the country, but he was courageously resisted, and the territories which he took from her were restored in 1815 by the Congress of Vienna, together with the Tyrol, Dalmatia, Lombardy and Venice, and the Illyrian provinces. Several insurrections in the Austro-Italian provinces occurred during the last year of Emperor Francis' reign, and the maintenance of the confederation was shown to be a very difficult matter, far beyond the ability of his son, Ferdinand I., who succeeded in 1835. The crafty Metternich almost entirely dictated the national policy during his reign, which ended by his abdication in 1848, when the throne was given to his nephew, Francis Joseph. During this year occurred the Hungarian revolution, led by Kossuth. In 1859 the relations of Austria and France were broken off, but after a warfare of two months the two Emperors, Francis Joseph and Napoleon III., consummated a peace by which Austria surrendered Lombardy, Italy was made a confederation under the Pope, and Tuscany and Modena were restored to their rulers. The Constitution which Kossuth and his compatriots struggled for in 1848 was granted in 1867. In 1860 the first Constitution of Austria was promulgated, which was followed by a patent in 1861, upon which was based a charter that went into effect in 1867. Hungary's independence was acknowledged, and July 8, 1867, the Emperor was crowned King of Hungary, which country pledged itself to contribute to the national revenues. In 1864 Austria combined with Prussia in the occupation of the Danish provinces of Schleswig, Holstein and Lauenburg, which terminated in their acquisition; but, quarrelling afterward with Prussia over the question of their disposition, she went to war with that power. This adventure was freighted with disaster, and the peace which followed was only purchased at the cost of Venetia, the fortresses of the Quadrilateral, the recognition of the dissolution of the German Confederation, and the payment of a large indemnity. After the close of the Turko-Russian war of 1877–8, the Austrian Empire was enlarged by the acquisition of Bosnia, Herzegovina and Novi-Bazar.

By the present Constitution each of the two countries, Austria and Hungary, has its own parliament, ministry and government, the connecting links being a common sovereign, army, navy and diplomacy, together with a controlling body known as the Delegations. The latter form a parliament of 120 members, equally divided between the two countries, the delegates being chosen by the local legislatures, the latter bodies having two branches, substantially the same as the Senate and House of the United States Congress. The local legislature or diet is called Reichstag in Hungary, Reichsrath in Austria. The delegations of each country sit in a body by themselves, possessing co-ordinate authority and power; but if they cannot agree upon measures while thus acting separately, they meet as one body, and the final vote is binding upon the entire empire. This imperial diet is confined in its jurisdiction to foreign affairs and war. There are three Ministers for the whole empire, namely, the Ministers of War, of Foreign Affairs and of Finance. There is a ministry in Austria and another in Hungary. The former consists of the Interior, Public Education, Justice and Ecclesiastical Affairs, Finance, Agriculture, Commerce, and National Defence. The Hungarian departments or executives are: Presidency of the Council, Finance, National Defence, Ministry near the King's Person, Interior, Education and Public Worship, Justice, Communications and Public Works, Agriculture, Industry and Commerce, and the Ministry of Croatia and Slavonia. The Imperial Cabinet is responsible to the Delegations, the local cabinets to their respective diets, the Reichstag and Reichsrath, as the case may be.


EUROPE
Scale of Miles
0 100 200 500
ARCTIC OCEAN
NORTH SEA
BALTIC SEA
ATLANTIC OCEAN
BRITISH ISLES
FRANCE
SPAIN
PORTUGAL
MEDITERRANEAN SEA
BLACK SEA
CASPIAN SEA
RUSSIA
AUSTRO-HUNGARIAN MONARCHY
TURKEY
ASIA MINOR
TURKEY IN ASIA
PERSIA
ARABIA
AFRICA
ALGERIA
MOROCCO
GREECE
SWEDEN
NORWAY
FINLAND
DENMARK
ICELAND
SIBERIA
North Cape
Reikiavik
Mt. Hecla
Lofoden Isles
Faroe Is.
Shetland Is.
Orkney Is.
Trondhjem
Bergen
Christiansand
The Naze
Aberdeen
Dundee
Edinburgh
York
Hull
Humber R.
Liverpool
Dublin
Galway
Sligo
Malin Hd.
Hebrides
Glasgow
C. Wrath
C. Clear
St. George's Channel
Land's End
English Channel
St. Matthew's Pt.
Brest
Caen
Paris
Nantes
Orleans
Bay of Biscay
Bordeaux
C. Ortegal
C. Finisterre
Lisbon
C. Roca
C. St. Vincent
Gibraltar
Cadiz
Cartagena
Algiers
Tunis
C. Bon
Malta (Br.)
Sardinia
Corsica
Minorca
Majorca
Balearic Isles
Marseilles
Toulon
Nice
Genoa
Rome
Naples
Mt. Vesuvius
Sicily
Palermo
Mt. Etna
Ionian Sea
Adriatic Sea
Hamburg
Berlin
Dresden
Breslau
Frankfort
Hanover
Amsterdam
Rotterdam
Antwerp
Ostend
Calais
Dover
Strait of Dover
Stuttgart
Munich
Vienna
Prague
Trieste
Venice
Milan
Turin
Lyons
Belgrade
Bosnia
Hungary
Poland
Warsaw
Danzig
Memel
Riga
Revel
Gulf of Bothnia
Gulf of Finland
Aland Is.
Abo
Stockholm
Gothenburg
Carlscrona
Skagerrack
Christiania
Copenhagen
Sound
Ladoga
St. Petersburg
Onega L.
Archangel
Tornea
Petchora R.
Dwina R.
Onega R.
White Sea
Kolguev I.
Nova Zembla
Ural Mountains
Perm
Vologda
Moscow
Tula
Minsk
Pripet R.
Dnieper R.
Dwina R.
Volga R.
Kazan
Saratov
Orenburg
Ufa
Ural R.
Kursk
Kiev
Polotzk
Dniester R.
Bug R.
Khutzov
Odessa
Crimea
Sevastopol
Balaklava
Sea of Azov
Azov
Astrakhan
Caucasus Mts.
Mt. Elburz
Tiflis
Erivan
Mt. Ararat
Lake Van
Lake Urumiah
Sinope
Trebizond
Constantinople
Sea of Marmora
Dardanelles
Archipelago
Smyrna
Adalia
Cyprus
Rhodes
Candia
Beyrout
Aleppo
Antioch
Damascus
Syria
Euphrates R.
Tigris R.
Ruins of Nineveh
Bagdad
Hillah (Ruins of Babylon)
Persian Gulf
Jerusalem
Dead Sea
Mouths of the Nile
Alexandria
Long. East
Long. West from Greenwich
10
20
30
40
50
60
70


ENGLAND
AND
WALES
Scale of Miles
10 0 10 20 30 40 50
SCOTLAND
EDINBURGH
Dunbar
Berwick
Glasgow
Ayr
Girvan
Hawick
Dumfries
Langholm
Stranraer
Carlisle
Gateshead
Sunderland
Durham
Stockton
Whitby
Middlesborough
Scarborough
Flamborough Hd.
Bridlington B.
Northallerton
Hunmanby
Malton
Bridlington
Ramsey
ISLE OF MAN
Douglas
Castletown
Lancaster
Fleetwood
Marston
Beverly
Hornsea
Withernsea
Spurn Head
Preston
Burnley
Halifax
Leeds
Selby
Hull
Blackburn
Wakefield
Pontefract
Huddersfield
Barton
Wigan
Bolton
Oldham
Doncaster
Gt. Grimsby
Liverpool
Birkenhead
Manchester
Gainsborough
Carmel's Pt.
Holyhead
Holy I.
Sheffield
Macclesfield
Lincoln
Alford
Ingoldmells Pt.
Denbigh
Chester
Chesterfield
Crewe
Hanley
Mansfield
Newark
Nottingham
Stoke on Trent
Derby
Boston
Grantham
Foulness
Holt
Kings Lynn
Braich-y-Pwll
Tremadoc Bay
Wem
Shrewsbury
Burton upon Trent
Leicester
Bosworth
Oakham
Norwich
Lowestoft
Montgomery
Walsall
Birmingham
Coventry
Rugby
Stilton
Thetford
Ludlow
Kidderminster
Huntingdon
Ely
Aberystwith
Aberaeron
Ramsey
Warwick
Leamington
Cambridge
Halesworth
St. Edmunds
Fregaron
Leominster
Stratford on Avon
Bedford
Sudbury
Ipswich
Hereford
St. Davids Hd.
St. Davids
Carmarthen
Brecknock
Buckingham
Hitchin
Halstead
Colchester
Tenby
Gloucester
Cheltenham
Woodstock
Aylesbury
Oxford
Chelmsford
Burnham
Monmouth
Stroud
Hertford
Enfield
Roulness I.
Newport
Malmesbury
Bristol
Cardiff
Reading
Eton
LONDON
Greenwich
Sheerness
Margate
Devizes
Basingstoke
Croydon
Rochester
Chatham
Maidstone
Lundy I.
Barnstaple
Bridgewater
Trowbridge
Guildford
Tunbridge
Deal
Dover
Hartland Pt.
Bideford
Taunton
Glastonbury
Salisbury
Winchester
Tunbridge Wells
Folkestone
Tiverton
Yeovil
Southampton
Chichester
Lewes
Dungeness
Bude B.
Honiton
Exeter
Launceston
Dorchester
Portsmouth
Ryde
Hastings
Boulogne
Calais
Beachy Head
Brighton
Watergate B.
Teignmouth
Isle of Wight
St. Catherines Pt.
Portland Bill
St. Albans Hd.
Weymouth
Redruth
Truro
Falmouth
Torquay
Dartmouth
Start B.
Plymouth
Devonport
St. Ives
Penzance
Lands End
Lizard Hd.
Eddystone
Calcombe Hev.
Ll. Ho.
Falmouth B.
ENGLISH CHANNEL
BRISTOL CHANNEL
IRISH SEA
NORTH CHANNEL
ST. GEORGE'S CHANNEL
Dieppe
FRANCE
R. Somme
Longitude
5 4 3 2 1 0 1
West from Greenwich East
R. S. PEALE & CO., CHICAGO.

BELGIUM.

BELGIUM, the most densely populated country in Europe, was in its earlier days a favorite bone of contention for the European powers, and frequently became the battle-field upon which their claims were settled. The Burgundians, the Austrians and the Spaniards successively ruled it, and in Napoleon's time it came under French rule. In 1814 a union between Holland and Belgium took place, which proved very unpopular with the Belgians, and shortly after the Paris revolution of 1830 they rose against the Government in such force that the troops ordered to quell the uprising found themselves unable to do so. Brussels, the capital, and other large cities fell into the hands of mobs, who destroyed much valuable property. A separation of the States followed, and the differences between them were finally settled by a convention of the great powers in London. The dissolution of the Kingdom of the Netherlands was proclaimed, and in 1831 Prince Leopold of Saxe-Coburg entered Brussels as the Belgian King; but the kingdom was not recognized by all the States of Europe until 1839, when the treaty was signed which established peace between Leopold and the King of the Netherlands. Leopold I. died in 1865, and was succeeded by his eldest son, Leopold II., who still reigns. Belgium has long been the scene of a struggle between the priests and growing liberalism. In 1850 the educational question, which had occasioned a long and fierce dispute, was supposed to be settled on liberal principles, but since then there has been another keen struggle between the Progressionists and the Ultramontanes, and in 1875 Belgium was the scene of serious religious riots, in which many persons taking part in processions were injured by mobs which attacked the demonstrations.

The Government of Belgium is a limited constitutional monarchy, which was established in its present form by the revolution. The broadest principles of freedom and liberality are its foundation; power comes from the people, and is restrained by law. Republican equality and simplicity pervade all institutions. No act of the King is valid unless it has the approval of one of his Ministers. The law-making power is vested in the Legislature, consisting of a Senate and a Chamber of Representatives, who are elected in the proportion of one to every 40,000 inhabitants. The law is administered by local and provincial tribunals, with courts of appeal in the principal cities. The provinces, each of which has a Governor who is named by the King and a Provincial Council, are divided for civil purposes into arondissements, justice of peace cantons, and communes. The provincial councils guard the interests of the different provinces, direct taxation, superintend public improvements and prepare budgets.

HOLLAND.

(THE NETHERLANDS.)

AFTER being ruled for four centuries by a number of princes who were subject to either France or Germany, the Netherlands, in the fourteenth century, came almost entirely under the rule of the Duke of Burgundy. At that time the country was rich, prosperous and happy, the controlling interest of the State resting in the great commercial cities, which were in the enjoyment of almost republican freedom, and renowned for the splendor and wealth which they acquired under the Burgundian rule. About the middle of the sixteenth century an attempt to bring under the power of the Inquisition the Netherland Protestants, who had taken early a part in the Reformation, was stoutly resisted. Concessions were made which produced a temporary quiet, but Philip II., who was King at the time, entered upon the work of crushing Protestantism, and carried it on with merciless rigor, his ferocious policy entailing the execution of large numbers of the aristocracy who had aided the rebellion. The Prince of Orange, having made alliance

with the Protestant powers, waged war against the oppressor. However, the assassination of the Prince in 1584 for the time being dashed their hopes of success, and the war ended. His son, Prince Maurice, carried on the war later with success. In 1648 war with Spain ended, and the Netherlands achieved their independence. Foreign conquest occupied the attention of the Dutch even when occupied with domestic troubles, and they have advanced greatly in prosperity. The colonial possessions of the country are very important, consisting mainly of islands in the East Indies; portions of Borneo, Celebes and Sumatra, in Asia; and Dutch Guiana and Curacoa and several islands in America. Like Belgium, the Government of the Netherlands is a limited constitutional monarchy, with the executive vested in the King,



CITY OF AMSTERDAM.

their standard was planted on several of the East India Islands and on the American continent. A great naval power, they for many years disputed with England the supremacy of the seas. The events which led to the separation from Belgium are described in the history of that country. Since that occurrence the Netherlands, with the exception of wars with her colonies, have enjoyed a prolonged peace, during which with a Council of State nominated by him, and the Ministers of the Interior, Foreign Affairs, Finance, War, the Colonies, Marine and Justice. Legislative authority rests in a Parliament, consisting of two chambers, known as the States-General. The governors of the provinces, the burgomasters of cities, towns and villages, and many other officials, are appointed by the King.


IRELAND
Scale of Miles
10 0 10 20 30 40
Longitude West from Greenwich
ATLANTIC OCEAN
IRISH SEA
NORTH CHANNEL
ST. GEORGES CHANNEL
SCOTLAND
Malin Hd.
Bloody Foreland
Tory I.
Teelin Head
Benwee Hd.
Downpatrick Hd.
Ennis Hd.
Saddle Hd.
Achill Hd.
Slyne Hd.
Hags Hd.
Loop Hd.
Brandon Hd.
Dingle Bay
Valencia Id.
Crow Hd.
Mizen Hd.
Cape Clear
Old Hd. of Kinsale
Galley Hd.
Kinsale Hbr.
Cork Hbr.
Waterford Hbr.
Hook Hd.
Carnsore Pt.
Mizen Hd.
Cahore Pt.
Howth Hd.
Lambay I.
Irelands Eye
Dublin Bay
Dunany Pt.
Clogher Hd.
Dundalk Bay
Carlingford Lough
Strangford Lough
Belfast
Lough Neagh
Lough Erne
Donegal Bay
Sligo Bay
Galway Bay
North Sound
Clew Bay
Killiskey Bay
Tralee Bay
Bantry Bay
Dunmanway Bay
Roaring Water B.
Courtmacsherry B.
Clonakilty Bay
Waterford Harb.
Youghal Harb.
Ballinskelligs B.
St Finans B.
Kenmare R.
Bantry
Clonakilty
Skibbereen
Macroom
Bandon
Kinsale
Cork
Youghal
Dungarvan
Lismore
Tallow
Fermoy
Mallow
Killarney
Tralee
Listowel
Newcastle
Rathkeale
Limerick
Tipperary
Cashel
Clonmel
Carrick on Suir
Thurles
Roscrea
Nenagh
Templemore
Ennis
Killaloe
Scarriff
Kilrush
Carrigaholt
Kilkee
Tarbert
Ballylongford
Ardfert
Castleisland
Killorglin
Kenmare
Glengarriff
Bantry
Skibbereen
Clonakilty
Kinsale
Cork
Middleton
Youghal
Cappoquin
Lismore
Dungarvan
Tramore
Waterford
Wexford
New Ross
Enniscorthy
Gorey
Arklow
Wicklow
Bray
Kingstown
Dublin
Drogheda
Dundalk
Ardee
Carrickmacross
Castleblayney
Monaghan
Clones
Cavan
Belturbet
Enniskillen
Lough Erne
Lough Melvin
Sligo
Ballina
Killala
Ballycastle
Belmullet
Westport
Newport
Castlebar
Swinford
Tobercurry
Boyle
Carrick on Shannon
Longford
Granard
Edgeworthstown
Athlone
Roscommon
Tuam
Galway
Athenry
Ballinasloe
Loughrea
Gort
Ballyvaghan
Kinvarra
Killimore
Inishmore
Inishmaan
Inisheer
Is. of Aran
Inishbofin
Inishturk
Clare I.
Achill Sound
Achill I.
Mullet
Blacksod Bay
Broad Haven
Erris Hd.
Tho
Downpatrick
Newry
Armagh
Portadown
Lurgan
Banbridge
Dromore
Hillsborough
Dundrum B.
Donard
Lough Neagh
Antrim
Larne
Ballymena
Glenarm
Cushendall
Red B.
Rathlin I.
Ballycastle
Portrush
Coleraine
Londonderry
Lifford
Letterkenny
Donegal
Ballyshannon
Bundoran
Sligo
Drumcliff
Ballymote
Tobercurry
Castlerea
Roscommon
Longford
Granard
Edgeworthstown
Mullingar
Kinnegad
Enfield
Trim
Athlone
Tullamore
Birr
Parsonstown
Kilbeggan
Clara
Mountmellick
Portarlington
Maryborough
Abbeyleix
Durrow
Carlow
Tullow
Baltinglass
Naas
Kildare
Celbridge
Maynooth
Ashbourne
Swords
Balbriggan
Skerries
Malahide
Howth
Kingstown
Bray
Wicklow
Arklow
Gorey
Enniscorthy
Wexford
New Ross
Waterford
Dungarvan
Youghal
Cappoquin
Lismore
Fermoy
Mallow
Millstreet


SCOTLAND
Scale of Miles
10 0 10 20 30
ATLANTIC OCEAN
NORTH SEA
IRISH SEA
NORTH CHANNEL
ATLANTIC OCEAN
Cape Wrath
Butt of Lewis
Cellar Hd.
Eye Peninsula
Summer Isles
Tarbet Ness
Dunnet Hd.
Duncansby Hd.
Wick
Kinnaird Hd.
Fraserburgh
Peterhead
Aberdeen
Stonehaven
Montrose
Arbroath
Dundee
Fife Ness
St. Andrews
St. Abbs Hd.
Berwick
Dunbar
Largo
Pittenweem
Kirkcaldy
Inverness
Nairn
Forres
Elgin
Banff
Turriff
Huntly
Ellon
Cairngorm
Ben Muchdhui
Balmoral
Braemar
Dyce
Aberdeen
Findon
Johnshaven
Brechin
Forfar
Blairgowrie
Dunkeld
Perth
Crieff
Scone
Callander
Ben Lomond
Stirling
Dumbarton
Clydebank
Glasgow
Paisley
Greenock
Rothesay
Campbeltown
Mull of Kintyre
Islay
Jura
Colonsay
Mull
Oban
Fort William
Ben Nevis
Ardnamurchan Pt.
Muck I.
Eigg I.
Rum I.
Canna I.
Skye
Isle of Skye
Portree
Tobermory
Barra Hd.
Butt of Lewis
Cape Wrath
Tarbet Ness
Dornoch
Golspie
Brora
Helmsdale
Berriedale
Latheron
Lybster
Wick
Thurso
Scrabster
Stornoway
Ullapool
Gairloch
Aird Pt.
Kyle of Lochalsh
Kyle of Tongue
Far Out Hd.
Strathy Pt.
Sandside Bay
Dunnet Bay
Thurso Bay
Sinclair B.
Dornoch Firth
Moray Firth
Pentland Firth
Inverness
Nairn
Elgin
Forres
Banff
Buchan
Aberdeenshire
Kincardine
Angus
Fife
Perthshire
Stirlingshire
Dunbartonshire
Renfrewshire
Ayrshire
Lanarkshire
Edinburgh
Haddington
Berwickshire
Roxburgh
Selkirk
Peebles
Dumfries
Kirkcudbright
Wigtown
Galloway
Ayr
Troon
Irvine
Kilmarnock
Douglas
Cairntable
Hamilton
Motherwell
Airdrie
Coatbridge
Lanark
Biggar
Penpont
Thornhill
Sanquhar
New Galloway
Dumfries
Castleton
Langholm
Gretna Green
Annan
Carlisle
Cumberland
Northumberland
Maryport
Solway Firth
Cairnryan
Newton Stewart
Castle Douglas
Dalbeattie
Glenluce
Wigtown
Whithorn
Burrow Hd.
Mull of Galloway
Port Patrick
Larne
Belfast
Belfast Lough
Londonderry
Lough Foyle
Coleraine
Ballantrae
Corsill Pt.
Loch Ryan
Girvan
Ailsa Craig
Arran
Brodick
Lamlash
Kilbrannan Sound
Firth of Clyde
Firth of Lorn
Sound of Mull
Sound of Jura
Gigha I.
Rhynns Pt.
Sanaig Pt.
Malin Hd.
Barra Hd.
Outer Hebrides
Inner Hebrides
Minch
Little Minch
Gulf of the Hebrides
Shetland Islands
Yell
Unst
Fetlar
Mainland
Lerwick
St. Magnus B.
Fitful Hd.
Sumburgh Hd.
Foula
North Sea
N. Ronaldsha
Sanda
Stronsa
Sapinsha
Orkney Islands
Pomona or Mainland
S. Ronaldsha
Pentland Firth
Kirkwall
Stromness
Longitude West 7 6 5 from Greenwich 4 3 2
R. R. PEALE & CO., CHICAGO.

NORWAY AND SWEDEN.

NORWAY was a collection of petty tribes up to the time of Harold Harfager, who, in 863, began the work of unification. Attempts to introduce Christianity met with little success up to the time of Olaf Skatkonung, who inaugurated a crusade against the Pagan Finns, destroyed the Pagan temples, and laid the foundations of the city of Trondhjem. In the early part of the eleventh century Canute, the Danish King of England, conquered Olaf and assumed the crown. Wars with Britain followed, and Ireland was invaded. On the water the prowess of the Norsemen was remarkable, and for years they scourged the seas, but the defeat of Haco V. off the west coast of Scotland, and his death later in the Orkney Islands, were followed by a period of national depression. National industries were checked, foreign wars exhausted the exchequer, and in two years following 1347 the plague prevailed through the land, carrying off more than half the people. Not only its nationality, but also its language, passed away during this period, and when, in 1380, the crown descended to the son of Olaf III., a union of the two countries was accomplished which lasted for over four centuries. Near the close of the fourteenth century Margaret effected the conquest of all Scandinavia, and the three kingdoms became one under the treaty of Calmar, which remained in force until 1523, when Sweden emancipated herself from the union with Denmark, and gave to Gustaf Vasa, who helped on the deliverance, the crown. For more than two centuries thereafter Norway was merely a province of Denmark, but about the beginning of this century the national prospects brightened, when Charles XIV. of Sweden was on the throne. The Danes acknowledged Norway as a Swedish dominion, and the two countries were united August 14, 1814. In 1818, Napoleon's General, Bernadotte, was elected to the throne, and under him and the succeeding generations of his dynasty, which still rules, great advancement has been made in the direction of liberal government.

SWEDEN'S modern history is almost indissolubly connected with that of Norway. During the rule of Gustaf Vasa, who headed the successful revolt against Denmark, the country enjoyed great prosperity. In succeeding reigns the country was at war almost constantly, and the successes of the great Gustavus Adolphus are among the most glorious of the nation's annals. In 1743, in a war with Russia which had lasted two years, Sweden lost Eastern Finland to that power. A new constitution was decreed in 1809, when Gustavus IV. was forcibly deposed in favor of his uncle, Charles XIII. The union with Norway, in 1814, which has already been mentioned, ends the distinctive histories of both countries. In 1855 Russian encroachments were threatened, but an alliance which Norway and Sweden effected with Great Britain and France, by which the former engaged themselves never to cede or sell territory to Russia, secured the guarantee by the two latter powers of their future territorial integrity.

Though having a common ruler, the treaty of union between Norway and Sweden leaves each of them free, independent, indivisible and inalienable. The Government, of which Oscar II. is now the head, is a constitutional hereditary monarchy. Legislative authority lies in the Storthing—an assembly of deputies which meets annually, and whose members are chosen by indirect election. It meets of its own authority and divides itself into two chambers—the Lagthing, practically a Senate, and consisting of about two-fifths of the entire Storthing, and the Odelsting. A Council of State gives consent to the declaration of war, making of peace or conclusion and abrogation of treaties by the King, who is required to pass some months of each year at Norway and to be crowned at Trondhjem.

DENMARK.

IN the days of the Norsemen Jutland was occupied by a number of sea-faring chieftains, who divided their time between war among themselves and piracy upon outsiders. In the tenth century these bold mariner-warriors had made their way as far as the coasts of Scotland and Normandy, carrying terror into such places as they visited. After having paid England one or two flying visits, they came to stay in 1018, when the Danish King Canute added that country to his dominions in the east. The Danish tenure was of short duration. Anarchy arose in Denmark after Canute's departure, and in 1042 his dynasty became extinct, and his sister's son, Svend Estridsen, succeeded. Foreign wars

and internal dissensions enfeebled the land, and a powerful aristocracy arose who oppressed the people, reducing them almost to a condition of slavery. In the reign of Canute VI. and Valdemar II. the power of Denmark grew until its regal authority extended over Holstein, Pomerania and a large portion of North Germany. The Baltic became little more than a Danish inland sea, and heavy tolls were exacted of all foreign vessels which entered it. After the death of Valdemar, in 1241, internal disquietude possessed the country, which rapidly lost its possessions and prestige. The third Valdemar, however, retrieved the nation and regained many of its possessions. Dying in 1375, he was succeeded as regent by his daughter Margaret, who had married the King of Norway and was at this time his widow. Her rule, by the treaty of Calmar, was also extended to Sweden and Norway, and the union of the three countries lasted until 1523, when the Swedes arose in insurrection against Erick, and the two crowns were separated. Up to the year 1660 the crown was, to a large extent, elective, but in that year Frederick III., aided by the people, who arose against the nobles, assumed the supreme power, forming an absolute monarchy with right of succession. For a century the peasantry were kept in a condition of serfdom, but its abolition was accomplished by Christian VII. in the eighteenth century. Wars on her own account or in alliance with other nations kept Denmark busy until 1848, when an insurrection arose in Holstein which brought the country to the verge of ruin. Prussia lent the insurrectionists a portion of her army, but the revolution was put down and a peace was concluded in Prussia in 1850, and in 1852 a protocol was drawn up in London returning the duchies of Holstein and Schleswig to Denmark. A final settlement of the question was not yet reached, however, and when, in 1863, the King died suddenly, the Duke of Augustenberg laid claim to the throne, supported by Prussia, Austria and other German States. The duchies were occupied by their troops, and in the war which Denmark brought to expel them her armies were defeated, and in 1864 King Christian IX. surrendered Holstein, Schleswig and Lauenberg to the conquerors.

The despotic form of government which was established in 1660 lasted until 1849, when Frederick VII. signed a charter acknowledging the principle of limited monarchy, and made the future government dependent upon the Rigsdad (Congress), consisting of two elective houses, the executive power resting in the King and his Ministers. The Rigsdad consists of two houses — the Landsthing, corresponding to the United States Senate and having the privilege of discussing the budget, and the Folkething, similar to the United States House of Representatives, which administers local affairs. Certain members of the Landsthing receive their nomination from the Crown for life, the remainder being elected indirectly by the people for eight years. The members of the Folkething are elected directly for a term of three years. All male citizens over 30 years of age who are not paupers enjoy the privilege of voting. With the King as its presiding officer, the executive body comprises the President of the Council, who is also the Minister of Finance, and the Ministers of Foreign Affairs, the Interior, Public Education and Ecclesiastical Affairs, Justice, and for Iceland, War and Marine.

FRANCE.

FOUR centuries after the invasion of Julius Cæsar, which made ancient Gaul a Roman province, the country, being deserted by its conquerors, was invaded by the Franks, whose leader, Clovis, in the sixth century, established the French monarchy. The Merovingian dynasty, which he founded, was succeeded by the Carlovingian, whose greatest ruler, Charlemagne, extended his empire until it included Italy and a large portion of Germany. The House of Capet succeeded, and ruled from 987 to 1328, and that of Valois, which followed, from 1328 to 1589, and during all these years, while the power of the nobles was checked by the growing wealth and influence of the burghers, the monarchy gained in strength. In 1589 the Bourbon dynasty was founded by Henry IV., who was succeeded by Louis XIII., an indolent monarch, who left the conduct of affairs to his powerful Minister, Cardinal Richelieu. The reign of Louis XIV., which followed, was in many respects a brilliant one, but freighted with misfortunes which did not appear until after its close. The revocation of the Edict of Nantes, by which religious freedom had been secured, led to banishments and persecutions, which cost the country many of its leading industries. The court's reckless prodigality in the erection of magnificent buildings and the conduct of gorgeous spectacles, together with more or less successful wars, swelled the national debt to an enormous extent, and this burden crushed the French people during the succeeding reigns, and was a potent cause of the revolution of 1788. The reign of Louis XV. added to the national burden, and the evil influences of his mistresses led to a foreign policy which cost France her colonial possessions and the loss of her fleets and armies abroad. His successor, Louis XVI., an amiable but weak monarch, lacked the ability to cope with the difficulties of his position, and, after


FRANCE
Scale of Miles
20 10 0 20 40 60 80 100
ENGLAND
ENGLISH CHANNEL
BAY OF BISCAY
SPAIN
PRUSSIA
BELGIUM
SWITZERLAND
ITALY
MEDITERRANEAN SEA
GULF OF THE LION
CORSICA
Plymouth
Lof Wight
Portsmouth
Lands End
Lizard Hd.
C. la Hague
Alderney
CHANNEL ISLANDS
Guernsey
Jersey
Les Sept Is.
C. Frehel
Ushant
Cherbourg
Dieppe
Le Havre
Rouen
Beauvais
Amiens
St. Quentin
Abbeville
Arras
Douay
Lille
Tourcoing
Mons
Liege
Namur
Sedan
Luxemburg
Treves
Frankfort
Mayence
Mannheim
Palatinate
Carlsruhe
Stuttgart
WURTEMBERG
Metz
Nancy
Strasburg
Mulhausen
Basle
Lake of Constance
Zurich
Lucerne
BERNE
Lausanne
L. Geneva
Geneva
Belfort
Besancon
Dijon
Chalons
Rheims
Laon
Soissons
Versoul
Epinal
Colmar
Chaumont
Troyes
Sens
Auxerre
Montbart
Autonne
Macon
Bourg
Lyons
Vienne
Chambery
Grenoble
Milan
Genoa
Gulf of Genoa
Nice
Marseilles
Toulon
Aix
Arles
Avignon
Nimes
Montpellier
Beziers
Narbonne
Carcassonne
Toulouse
Auch
Pau
Bayonne
B. Sebastian
Bordeaux
Rochelle
Rochfort
Napoleon Vendee
Poitiers
Niort
Civray
Angouleme
Limoges
Clermont Ferrand
Puy de Dome
St. Etienne
Gueret
Chateauroux
Bourges
Aubigny
Cosne
Nevers
Moulins
La Palisse
Autun
Salins
Besancon
Belley
Aurillac
Rodez
Cahors
Figeac
Tulle
Ussel
Brive
Montauban
Agen
Bazas
Roquefort
Dax
Mont de Marsan
Orthez
Tarbes
Lourdes
Foix
Perpignan
Aleth
Alais
Nyons
Digne
Draguignan
Grasse
Antibes
Calvi
Bastia
Mt. Rotondo
Ajaccio
Sartene
Bonifacio
Porto Vecchio
Mt. Piano
Longitude West
Longitude East
from Greenwich


GERMAN EMPIRE
AND
AUSTRO HUNGARIAN
MONARCHY
Scale of Miles
0 25 50 100 150
Longitude East from Greenwich
5 10 15 20 25
Memel
55
50
45
10
DENMARK
Funen
Zealand
SWEDEN
Bornholm
BALTIC SEA
Kurische Haff
Tilsit
Memel R.
Konigsberg
Pillau
Rixhoft
G. of Danzig
Danzig
Vilna
East Prussia
Spirding S.
Bialystok
Kolberg
West Prussia
Kammin
Usedom I.
Deminin
Stettin
Pomerania
Stargard
Bromberg
Konitz
Thorn
Vistula R.
Plock
WARSAW
Pinsk
Pripet R.
Dniester R.
Posen
Warta R.
POLAND
Radom
Lublin
Kovel
Brody
Tarnow
Jaroslaw
Lemberg
Galicia
Sambor
Dniester R.
Pruth R.
Czernowitz
Bukowina
Eperies
Kaschau
Neushol
Tokay
Theiss R.
Debrecain
Grosswardein
Klausenburg
Transylvania
Arad
Karlsburg
Temesvar
Transylvania Alps
Walachia
Foldvar
Szegedin
Maros R.
Funfkirchen
Theresiopel
Nagy Kanisa
Tolna
Hungary
Croatia
Slavonia
R. Drave
R. Save
Belgrade
R. Danube
Peath or Buda
Ofen
Gran
Pressburg
Schemnitz
Eflau
Lower Austria
VIENNA
Upper Austria
Linz
Salzburg
Krems
Austerlitz
Brunn
Olmutz
Moravia
Prague
Pilsen
Tabor
Budweis
Bohemia
Karlsbad
Konigsgratz
Sadowa
Elbe R.
Oppeln
Breslau
Silesia
Glogau
Wohlau
Gorlitz
Kottbus
Guben
Frankfurt
Berlin
Potsdam
Magdeburg
Brandenburg
Saxony
Leipzig
Dresden
Chemnitz
Zwickau
Weimar
Jena
Gotha
Erfurt
Hesse Cassel
Fulda
Marburg
Cologne
Bonn
Rhenish Prussia
Coblentz
Treves
Luxemburg
Metz
Nancy
Verdun
Sedan
Arlon
Liege
Antwerp
BRUSSELS
Dusseldorf
Waldeck
Cassel
Westphalia
Munster
Osnabruck
Minden
Hanover
Brunswick
Hamburg
Altona
Lubeck
Holstein
Kiel
Flensburg
Schleswig
Frisian Is.
N. Sylt
Rostock
Stralsund
Rugen I.
Zingst I.
Fehmern
Lauenburg
Luneburg
Uelzen
Bremen
Emden
Leeuwarden
Amsterdam
Haarlem
THE HAGUE
Rotterdam
Zuider Zee
Utrecht
Arnheim
Nimeguen
Wesel
Cleves
Aix la Chapelle
Mayence
Frankfurt
Wiesbaden
Worms
Darmstadt
Heidelberg
Mannheim
Rhenish Bavaria
Carlsruhe
Baden
Strasburg
Nancy
Verdun
Metz
Bar R.
Meuse R.
Moselle R.
Saar R.
Rhine R.
Main R.
Danube R.
Inn R.
Isar R.
Lech R.
Iller R.
Neckar R.
Nordlingen
Ratisbon
Passau
Landshut
Augsburg
Munich
Ulm
Stuttgart
Wurtemburg
Ansbach
Nuremberg
Bamberg
Wurzburg
Bavaria
Kempten
Constance
Lake of Constance
Basle (Basel)
Constan
Freiburg
Colmar
Schaffhausen
Mulhausen
Lucerne
BERN
SWITZERLAND
Lake of Geneva
Geneva
Mont Blanc
Alps
Innsbruck
Salzburg
Tyrol
Carinthia
Klagenfurt
Laibach
Gorlitz
Trieste
Istria
Fiume
Gulf of Venice
Adriatic Sea
Venice
Turin
Italy
Lombardy
Milan
Verona
Mantua
Garda
Lago Maggiore
Bolzen
Cannic Alps
Carniola
Croatia
Slavonia
Hungary
Austria
Bohemia
Moravia
Silesia
Saxony
Prussia
Poland
Galicia
Bukowina
Transylvania
Walachia
Hungarian Plain
Lake of Platten
Raab R.
Drave R.
Save R.
Theiss R.
Danube R.
Vistula R.
Bug R.
Dniester R.
Pripet R.
Niemen R.
Elbe R.
Oder R.
Vistula R.
Warta R.
Netze R.
Prosna R.
Bober R.
Neisse R.
Spree R.
Havel R.
Weser R.
Ems R.
Lippe R.
Rhine R.
Moselle R.
Meuse R.
Scheldt R.
Ourthe R.
Sambre R.
Lys R.
Aa R.
Yser R.
Ardennes
Vosges
Black Forest
Hartz Mts.
Thuringian Forest
Erzgebirge
Riesen Gebirge
Carpathian Mts.
Transylvania Alps
Julian Alps
Dolomite Alps
Pyrenees
Apennines
Mont Blanc
Alps
Lake of Geneva
Lake of Constance
Lake of Platten
Lake of Garda
Gulf of Venice
Adriatic Sea
North Sea
Baltic Sea
Black Sea
Caspian Sea
Mediterranean Sea
Ems-Jade Canal
Kiel Canal
Eider R.
Trave R.
Warnow R.
Peene R.
Oder R.
Elbe R.
Weser R.
Ems R.
Rhine R.
Moselle R.
Meuse R.
Scheldt R.
Danube R.
Inn R.
Isar R.
Lech R.
Iller R.
Neckar R.
Main R.
Saar R.
Ourthe R.
Sambre R.
Lys R.
Aa R.
Yser R.
Vistula R.
Bug R.
Dniester R.
Pripet R.
Niemen R.
Elbe R.
Oder R.
Vistula R.
Warta R.
Netze R.
Prosna R.
Bober R.
Neisse R.
Spree R.
Havel R.
Weser R.
Ems R.
Lippe R.
Rhine R.
Moselle R.
Meuse R.
Scheldt R.
Danube R.
Inn R.
Isar R.
Lech R.
Iller R.
Neckar R.
Main R.
Saar R.
Ourthe R.
Sambre R.
Lys R.
Aa R.
Yser R.
R. S. PEALE & CO., CHICAGO.

he had reigned for fourteen years, in 1788 was begun a revolution by which the whole framework of society in France was overturned. The *bourgeois*, or commoners, finding their powers checked by the combined clergy and nobility, in 1789 constituted themselves as the National Assembly, and proceeded to the formation of a Constitution. Troops being ordered to oppose them, in Paris, July 12, an insurrection broke out. A national guard and revolutionary municipal boards were formed, and July 14 the Bastile was stormed. August 4 the National Assembly abolished manorial and feudal rights, whereupon the aristocracy began to emigrate. The King and Queen were taken prisoners. A Constitution was prepared by the Assembly, to which the King gave his assent, as he did also to another which was formed later. The opposition of foreign courts to the revolution aroused the popular anger, and the King and Queen were executed. The Reign of Terror succeeded, the absolute power being placed in the hands of a Committee of Public Safety, whose excesses were terrible. Worship in accordance with the Christian religion was abolished, and that of Reason substituted. This caused dissensions within the convention itself, and when the last of the Jacobin leaders, Robespierre, perished upon the scaffold to which he had sent hundreds of victims, they were without a leader. In 1795 the convention adopted a new Constitution, which placed a Directory of five in charge of the national executive. The radical Democrats, combining with the Royalists, organized an insurrection against the new Constitution which was quelled by General Napoleon Bonaparte, whose qualities had already, at the early age of 26, brought him rank and distinction. The mob of Paris was subdued, but the Directory had a difficult task before it. England, Austria and Prussia were combined against the Republic, whose armies, however, achieved victories for it in foreign countries and made its name dreaded as well as respected. At home the Royalist interest made headway, and in 1797 they gained a majority in the representation. The Directory took severe measures, surrounded the Tuileries with troops and ordnance, arrested the Royalist members, declared their election illegal, and banished them from the country. Financial difficulties also added to the burden of the Directory. The public debt was more than the nation could pay, and the State was declared bankrupt and two-thirds of its obligations repudiated. Internal dissensions among its members lessened the prospect of the Directory's accomplishing any marked improvement.



NOTRE DAME, PARIS.

In this emergency Napoleon, who had secretly left Egypt, where the English fleet had nullified his Eastern victories, appeared suddenly in Paris, and, effecting an alliance with one of the disaffected parties in the Directory, secured its overthrow November 9, 1799. December 27, a new Constitution was offered to the people, which they sanctioned, and Napoleon, as First Consul, was entrusted with the administration of civil and military affairs, with the appointment of all public officials and with the proposition of all public measures. Early in 1800 he occupied the Tuileries with his wife, Josephine, whom he had married in March, 1796, and he established a court, whose extravagance was hardly likely to incur the popular displeasure as long as his administration continued to be marked by such wise measures as were passed during the earlier part of his rule. The re-establishment of the church, in accordance with a Papal concordat; the foundation of the Bank of France, with the restoration of financial order; the return of the emigrants; the establishment of a sound system of popular education, and the codification of the laws, were hailed with joy by the people, who saw their wisdom and appreciated the good results to follow.

At the head of the Empire he aspired to the control of Europe. One after another Italy, Spain, Portugal, Switzerland and Germany came under his control. He dictated terms of peace to the Emperors of Russia and Austria and to the King of Prussia. For ten years his star ruled in the ascendant. The decline came in 1814, when Paris was entered by the allied enemies of France, and Napoleon was forced to Elba in exile. The Bourbon dynasty was restored, and a year later Napoleon reappeared and gathered around him an army of enthusiastic followers. Success attended him at first, but, June 18, 1815, he was thoroughly defeated at Waterloo, and the Bourbon restoration was finally accomplished. In 1830 war was commenced with Algeria, which country was, after some years' fighting, ceded to France. In 1848 the Bourbons were again driven out and a Republic established, with Napoleon III., a nephew of the Emperor, as President. This lasted less than three years. In December, 1851, Napoleon, by the

infamous *coup d'etat*, seized the absolute power, setting aside the Constitution, and shortly afterward was crowned Emperor. The imperial prestige was sustained by the wars with Russia and Austria, which last secured France the Italian provinces of Savoy and Nice, but the ill-fated attempt to establish an empire in Mexico, and other failing enterprises, caused it to wane. The plebiscite of 1870, which was intended to secure the popular endorsement of the Napoleonic policy, was not flattering to the Empire, which found itself in 1870 forced into a war with Prussia, the leading events and results of which will be found in the history of Germany. This last experiment of imperial government, which cost France millions of money, thousands of lives and two provinces, has, for the time being, overcome the French admiration for centralized power, and the Republic which was established after the war is still a stable and popular government.

The legislative power in France is vested in a Legislative Corps, consisting of a Senate and a House of Deputies. The Senate consists of 300 members, 225 of whom are chosen for terms of nine years by the departments and colonies, and seventy-five for life by the National Assembly. The members of the Chamber of Deputies number 532—one to every 100,000 inhabitants—and are elected by universal suffrage. The executive power is vested in a President, elected for a term of seven years by a joint vote of the Senate and the Chamber of Deputies. He has power to dissolve the Chamber of Deputies on the advice of the Senate. The Secretaries of State, or Ministry, nine in number, are responsible to the Chambers for the political conduct of the Government. The President is responsible in cases of high treason only. Every Frenchman twenty-one years of age has a right to vote..

RUSSIA.

THE Greeks and Romans, as is evidenced in the writings of some of their best known authors, had gained some knowledge of the Sarmatians and Scythians, who occupied the rivers Don and Dnieper. Shortly after the commencement of the Christian era the native inhabitants were carried before the invasion of Goths and Huns from the East. The Slavonians are recorded as having driven the scattered Finns northward and settled down to the establishment of the Russian people. The country for a long period remained subdivided into provinces, each of which was practically independent of the remainder. Centralization of power was accomplished from time to time, but only to be again broken up, until in 1462 Ivan I. began to reign, and in the forty-two years in which he held the sceptre succeeded so ably in throwing off the Tartar yoke, and in uniting the principalities under his sway, that he must be regarded as the founder of the Russian nation. His successor, Ivan II., sometimes called the Terrible, or the Cruel, on account of the massacre which he ordered, in which 60,000 inhabitants of Novgorod, suspected of treason, were slain, advanced the work which his father had inaugurated, finally broke the power of the Tartars, and cultivated commerce and the arts as well as warfare. Perhaps the greatest of his peaceful achievements was the effecting of a commercial treaty with Queen Elizabeth, by which the English merchant marine, who had discovered the sea passage to Archangel, instituted trading relations with the northernmost parts of the Russian dominions. Under Peter the Great, Russia threw off her barbarism and took her place among the civilized nations of Europe. Though lacking education commensurate with his position, he had the sense to see the shortcoming and to remedy it, and his studies taught him the lesson of his country's greatest needs. On assuming the government he had the army reorganized in accordance with European military tactics. Seeing the necessity of naval power, and lacking a seaboard, he wrested the Sea of Azof from the Turks. Travelling incognito in foreign lands, he studied their arts and sciences and learned their trades, putting his knowledge to good use when he returned home again. Upon a site located on a strip of land he took from the Swedes, he laid the foundation of the modern capital, St. Petersburg, which he passed the last years of his life in beautifying. Dying in 1725, he was succeeded by his Empress, Catherine, who continued his policy. During the reign of Catherine II. the first partition of Poland between Russia, Austria and Prussia took place. She was succeeded by her son Paul, who still further advanced the interests of his country, now acknowledged to be one of the great European powers. In the reign of Alexander I. Russia was the balance of power in Europe. He was the father of the Holy Alliance—the compact entered into at Paris September 26, 1815, by the sovereigns of Russia, Austria and Prussia, joined by most of the European powers, which bound them to exclude forever every member of the Bonaparte family from any throne in Europe; also to stand by each other in the maintenance of their royal prerogatives and the general peace. It was during his reign that the inhabitants of the city of Moscow destroyed it by fire rather than have it give shelter to the invader Napoleon. His successor, Nicholas I., saw the nation engaged in a struggle with the combined armies of Great Britain, France, Italy and Turkey. Sebastopol, the stronghold of the Russians in the Crimea, was taken, and the Russian ambition to control the whole of the Black Sea checked for the time being. Under Alexander II., who succeeded him, was accomplished the liberation of the serfs in 1861, the humane policy being dictated rather by reasons


WEST INDIES
AND
CENTRAL AMERICA
Scale of Miles
0 50 100 200 300 400 500
Longitude West from Greenwich
GULF OF MEXICO
ATLANTIC OCEAN
CARIBBEAN SEA
PACIFIC OCEAN
SOUTH AMERICA
FLORIDA
BAHAMA ISLANDS
GREATER ANTILLES
LESSER ANTILLES
LEEWARD IS.
WINDWARD IS.
YUCATAN
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
COLOMBIA
VENEZUELA
HAVANA
NASSAU
JAMAICA
HAYTI OR SAN DOMINGO
DOMINICA
PORTO RICO
CARACAS
Great Bahama I.
Great Abaco
Eleuthera
Key West
New Providence
Andros I.
San Salvador I.
Watling I.
Long I.
Acklin
Caicos Is.
Turk Is.
Gt. Inagua I.
Gt. Exuma I.
Bahama Bank
Matanzas
Bahia Honda
Batabano
C. St. Antonio
YUCATAN CHANNEL
C. Catoche
Progreso
Merida
Cozumel I.
Isle of Pines
Cienfuegos
Trinidad
Espiritu Santo
Nuevitas
Puerto Principe
Baracoa
C. Mayst
Windward Passage
Haytien
Lit. Cayman
Gt. Cayman
C. de Cruz
Santiago de Cuba
Gonaives
Samana Bay
Mona Passage
Ponce
San Juan
St. Thomas
Virgin Is.
Anguilla
St. Barthelomew
St. Christopher
Barbuda
Santa Cruz
St. Eustatius
Antigua
Montserrat
Guadeloupe
Marie Galante
Dominica
Martinique
St. Lucia
St. Vincent
Grenadines
Barbadoes
Grenada
Tobago
Falmouth
Port Morant
Pt. Negril
Spanish Town
KINGSTON
Aux Cayes
PORT AU PRINCE
SAN DOMINGO
Turneff I.
BELIZE
BAY OF HONDURAS
Ruatan I.
Truxillo
C. Gracias a Dios
Volcan de Agua
GUATEMALA
SAN SALVADOR
La Union
Fonseca Bay
Coseguina V.
L. Managua
MANAGUA
Granada
San Juan del Norte
San Juan de Nicaragua (Greytown)
Virasu V.
Punta Arenas
G. of Nicoya
Cartago
Chiriqui
Panama
ISTHMUS OF PANAMA
Aspinwall (Colon)
Chagres
Porto Bello
G. of Darien
Chepo
Cebra I.
C. Manato
BAY OF PANAMA
Atrato R.
Magdalena
Cartagena
C. Gallinas
Oruba
Curaçoa
Buen Ayre
Los Roques
Orchilla
Blanquilla
VENEZUELA COAST IS.
Margarita
Tortuga
La Guayra
Port of Spain
Trinidad
Maracaybo
L. Maracaybo
Pearl Banks to Quebec, Montreal & Halifax
Passage Route to Quebec, Montreal & Halifax


OCEANIA
ASIA
CHINA
JAPAN
EMPIRE OF JAPAN
TOKIO (Yedo)
NORTH AMERICA
San Francisco
NORTH PACIFIC OCEAN
Tropic of Cancer
Equator
Tropic of Capricorn
Hongkong
Canton
Formosa
Nankin
Shanghae
Nagasaki
Shikoku
Kiushiu
Liu Kui Is.
Bonin Is.
Malabrigos Is.
Volcano Is.
Luzon
PHILIPPINE ISLANDS
MANILA
Samor
Mindanao
Palawan
Sulu Sea
Celebes Sea
Pelew Is.
Ulithi Is.
Gulu Is.
Ladrone or Marianne Is.
Guam (To Spain)
Wake I.
St. Bartolomeo
Lamira
Maurelle I.
Hawaii or Owhyhee
Mauna Loa Vol.
Honolulu
Woahoo
SANDWICH ISLANDS
Johnston I.
Caroline Islands
Radack Chain
Ralick Chain
Marshall Is.
Senlavin Is.
Mortlock Is.
Gilbert Is.
Nanouti
Phoenix Is.
Palmyra I.
Fanning I.
Walker
Christmas
Starbuck
Marquesas Is. (To France)
Nukahiva
Union Penrhyn Is.
Samoa or Navigators Is.
Society Is.
Tahiti or Otaheite
Cook Is.
Friendly Islands
Eastern Group
Fiji or Feejee Is. (British)
Santa Cruz Is.
New Hebrides
Loyalty Is.
New Caledonia (To France)
Norfolk I. (Br.)
Kermadec Is.
Lancaster Reef
Rapa I.
Bass Is.
Pitcairn
Tubuai or Austral Is.
Gambier Is. (To France)
Duke of Gloucester Is.
Low Archipelago or Dangerous Archip.
Pamamotu Archipelago
Ocean I.
Pleasant I.
Admiralty Is.
New Ireland
New Britain
Salomon Islands
PAPUA OR NEW GUINEA
Dampier Str.
Ellice Is.
Louisiade Archip.
CORAL SEA
Great Barrier Reef
Torres Str.
Melville I.
Arafura Sea
Timor
Sandal wood I.
Sumbawa
Bali
Java
Sumatra
Banca
Gilolo
Celebes
Borneo
Sooloo
Palawan
Natuna
Cambodia
Siam
Gulf of Siam
Malacca Str.
Singapore
Bencoolen
Keeling Is.
Sunda Str.
Batavia
JAVA SEA
Macassar Str.
Banda Sea
Flores
Sumbawa
Gilolo Passage
Gilolo B.
Geelvink B.
Mindoro Str.
Balabac Str.
Sooloo Sea
Celebes Sea
Timor Sea
Arafura Sea
Gulf of Carpentaria
Great Australian Bight
Spencer Gulf
Kangaroo I.
Investigator Str.
Banks Str.
Bass Str.
Port Phillip B.
Western Port B.
Jervis B.
Moreton B.
Sandy C.
Maryborough
Bowen
Port Macquarie
Sydney
Newcastle
Illawarra
Melbourne
Geelong
Adelaide
Victoria
New South Wales
Queensland
Western Australia
Perth
Swan R.
Albany
King George Sd.
C. Leeuwin
C. Pasley
C. Leveque
C. Londonderry
N.W. Cape
Central Mt Stewart
Shark B.
Sharks B.
Keppel B.
Hervey B.
Torres Str.
Endeavour Str.
Dampier Str.
Gulf of Carpentaria
Great Barrier Reef
Coral Sea
Tasmania
Launceston
Hobart Town
Rocky Pt.
Pt. Davey
Cape Sorell
Derwent R

of expediency, imperialism at the time being threatened by the progressive nobility and feeling the need of the good will of the fifty million working people. Twenty years later—years that were marked by cruel oppression and despotism—the Czar was slain by the hands of assassins, who had previously made repeated unsuccessful attempts to kill him. This occurred shortly after the war with Turkey, in which Russia overcame her foe, but without securing any distinct advantages from the victory. Notwithstanding she is jealously watched by the other powers, Russia continues to approach the accomplishment of her great aim—the possession of the Black Sea. In the East, too, her power is felt, and England's Indian border and China's western boundary are closely pressed by the Russian soldiery, and this, too, although the Government is threatened by conspiracies on every side, a majority of the peasants and laboring classes holding extreme communistic views, while the doctrine of Nihilism is said to permeate the whole Russian social fabric, and even among the nobility to possess its adherents by the thousands.

The Government of Russia is an absolute monarchy, hereditary in the house of Romanoff, which was founded in the seventeenth century, whose head rules by the title of Czar. The State Council, which is the highest consultative body in the State, is composed of the heads of departments and others selected by the Emperor, and is divided into the legislative, administrative and financial departments. The promulgation and execution of the law is left with the Senate, which is the court of last appeal. There is no representative body, and the power of the ministers hardly extends beyond rendering clerical assistance to the Czar, who makes all appointments. Trial by jury has been in vogue since 1866. Established by law and partially supported by the Government, the Russo-Greek Church is almost a part of it. It has a membership of over 50,000,000 souls in European Russia. The Russians have always maintained the national credit. The main portion of the revenue comes from excise duties on beer, spirits and salt; in addition to this there are a light poll-tax and a protective customs tariff.

ITALY.

ITALY, the successor of the ancient Roman Empire, has a history which runs back into the ages whose events are only matters of tradition. The Virgilian poem which tells of the founding of the Roman State by a band of Trojan refugees, and the story of the wolf-suckled twins, Romulus and Remus, are delightful legends. However, the foundation of the city is generally conceded to have occurred B.C. 753, when the kingdom was established which lasted until B.C. 509, when it was overthrown in the reign of Tarquin the Proud, and a republic established which lasted for nearly five centuries. During these eventful years the kingdom of Tarquin had grown into a mighty empire, yet not without suffering great national disasters. In the year 390 B.C. occurred the Gallic invasion, with the burning down of Rome by that terrible foe; from 343 to 290 B.C. raged the wars with the Samnites, who threatened the Roman power, but were finally subjugated; in 275 B.C. occurred the battle of Beneventum, by which the previously victorious Pyrrhus was overcome; in 216 B.C. was fought and lost the battle of Cannæ, by which the Carthaginian General, Hannibal, after destroying 80,000 of the Roman troops, came in sight of Rome's conquest, but lost his opportunity through delay; in 186 B.C. the enmity between Rome and Carthage culminated in the destruction of the latter city; in 111 B.C. began the Jugurthine war, in which the powerful Numidian was overthrown after a five years' struggle; in 88 B.C. began the Mithridatic war, which ended five years later in the overthrow of the King of Pontus, who sued for peace. Such were a few of the leading events which occurred between the regal and imperial eras of Roman history. They bring the reader to a period when Scylla, overcoming his rival, Marius, in civil war, seized the government and reigned as Dictator for three years. In the year 60 B.C. was formed the first triumvirate, when Julius Cæsar, Pompey and Crassus were invested with the government. Cæsar's wars of discovery in Gaul and Britannia followed, and then came the battle of Pharsalia, in which he defeated Pompey. Two years later Cæsar assumed the dictatorship, and in 44 B.C. he was slain in the Senate house by the assassins, Brutus, Cassius and others. Then followed the second triumvirate, and then the battle of Philippi, in which Brutus and Cassius were defeated; then the love episode between Cleopatra and Marc Antony, who, frittering away the opportunity to win the imperial prize at Rome, suffered defeat and death at Actium. In 27 B.C. Octavius established the Empire, under the title of Augustus Cæsar, at which time the city of Rome is supposed to have had about 700,000 population, while that of the Empire is believed to have been not less than 100,000,000. Then followed a line of Emperors, some of them wise and benevolent, others of them rapacious and cruel. Of the latter was the famous Nero, who proved the most bloodthirsty of tyrants. Under him began the persecutions of the Christians. He was accused of having set the city on fire for the pleasure to be derived from witnessing the conflagration. Of the former was Trajan, under whose beneficent administration much was done to civilize the ruder portions of the Empire, while the condition of the city and its inhabitants was greatly

ameliorated. In the reign of Constantine the Great the Christian religion was first acknowledged. He made himself a champion of the church by issuing the decree of Milan, in which he gave it imperial license and avowed himself a believer in its doctrines. Entering Rome in triumph in A.D. 312, he became the first Christian sovereign of the world, and after defeating the Pagans in their fortress of Byzantium he became sole Emperor of the entire Roman Empire. He transferred his capital from Rome to Constantinople, where he reigned until the year 337. His son Julian, who succeeded him, had been educated a Christian, but reverted to the old Pagan faith; but the next Emperor, Jovian, restored the Christian faith. In 383 the Roman Empire had three Emperors, who soon were at war, and the victor, Theodosius, divided the Empire into Eastern and Western at his death, in 395, putting one of his sons at the head of each. From this division resulted the Roman and the Greek churches. Roman imperialism reached its last stages in the fifth century. Alaric with his Northern hosts marched into Rome, wrought his pleasure there, and retired from it after twelve days of sack. Rome had fallen, and such events as are further mentioned may be regarded as belonging to Italian history proper. In the fifth century Venice was founded by fugitives fleeing before Attila. In the eighth century a Germanic tribe threatened Rome. In the ninth Charlemagne conquered Lombardy and assumed the title of Roman Emperor, the control of the city, however, being taken by the Pope. The German Kings conquered the northern portion of Italy, while the Byzantine Emperors and the Saracens ruled the southern portion until the uprising of the Normans. Several of the Italian cities, however, increased so in strength and riches as to be able to achieve their independence, and chief among these was Venice, which commanded the Adriatic Sea and kept back the Turks from the invasion of Western Europe. In the eighteenth century Austria obtained large portions of Italy's northern territory, while the republics of Venice and Genoa dwindled away. The remainder of the land was divided among petty sovereigns, who enjoyed life until the terrible days of the French revolution, after which Napoleon divided Italy into four republics, next establishing it as a monarchy, placing first his brother, Joseph Bonaparte, and then Murat, over it. After the battle of Waterloo the final reconstitution of Italy was decreed by the Congress of Vienna. Almost all the old boundaries and the old tyrannies were restored, followed by the outbreak of the Carbonari, whom the Austrians subdued.

In 1848, by a simultaneous insurrection in Lombardy and Venice, the great revolution was inaugurated. Supported by the Pope and the King of Sardinia, it was successful, and Lombardy was annexed to Sardinia. In the year following, however, Austria regained that territory. After an unsuccessful revolt in Milan in 1853, and in Sicily in 1856, the French effected an alliance with the Sardinians in 1859, and Austria was defeated in the great battles of Magenta and Solferino, which were followed by the hasty and inconclusive peace of Villafranca, which left Venetia to Austria, gave Lombardy to Sicily, and left unsettled the question of the Grand Duchies. Savoy and Nice were ceded to France, which still holds them, while Parma, Modena and the Sicilian provinces were incorporated with Sardinia. March 17, the law by which Victor Emmanuel assumed the title of King was promulgated. May 6, Garibaldi joined, with 1,000 men, a revolution which had broken out in Sicily. Declaring himself Dictator, he headed the revolt and speedily conquered the Two Sicilies. March 14, 1861, Victor Emmanuel was declared King of Italy by the first Italian Parliament. In the same year, on June 6, occurred the death of Cavour, who was the originator as well as the director of the Sardinian policy which resulted in Italian liberation. In 1866 Italy and Prussia united their forces against Austria, and Venetia was ceded to the Italians. Attempts were made by Mazzini and Garibaldi to drive the French from Rome, but they remained there until the war with Prussia. In 1867 the French army began to be withdrawn from Rome, and three years later the last detachment had left the Pontifical territory. September 20, 1870, the Italian army entered Rome, and October 9 the Papal States were declared part of the Kingdom of Italy. King Victor Emmanuel strengthened and consolidated the kingdom, and, dying in 1878, was succeeded by his son Humbert, who still reigns. Italy is a limited monarchy, with a Senate appointed by the King for life, and a Chamber of 508 Deputies, elected by popular suffrage for a term of five years. The lynching of eleven Italian members of the Mafia in New Orleans was the cause of a diplomatic controversy between Italy and the United States in 1891.


AFRICA
Scale of Miles
0 300 600 1200
20 Longitude West 0 Longitude East 30 from Greenwich 40
EUROPE
ASIA
ATLANTIC OCEAN
INDIAN OCEAN
MEDITERRANEAN SEA
BLACK SEA
CASPIAN SEA
RED SEA
ARABIA
SAHARA OR GREAT DESERT
SOUDAN
CENTRAL AFRICA
LOWER GUINEA
UPPER GUINEA
EGYPT
ABYSSINIA
SOMALI
MADAGASCAR
Azores or Western Is.
Madeira Is.
Canary Is.
Cape Blanco
C. Verd Is.
Cape Verd
Bathurst
Ascension I.
St. Helena I.
Cape Frio
Cape of Good Hope
CAPE TOWN
Port Elizabeth
Cape Palmas
C. Coast Castle
Annobon I.
Fernando Po I.
Princes I.
St. Thomas I.
Seychelles Is.
Comora Is.
Tamatave
Bourbon I.
C. St. Mary
Aldabra Is.
Socotra I.
C. Guardafui
Strait of Gibraltar
TROPIC OF CANCER
TROPIC OF CAPRICORN
EQUATOR
FRANCE
PORTUGAL
SPAIN
ITALY
TURKISH EMPIRE
Sardinia
Sicily
Candia
Cyprus
Alexandria
Isthmus of Suez
Suez
Cairo
TUNIS
ALGIERS
TRIPOLI
FEZ
MAROCCO
ALGERIA
BARCA
MURZUK
FEZZAN
Timbuctoo
Jenne
Sego
Sokoto
L. Tchad
Kuka
Yakoba
Khartoum
Kobbé
DARFUR
KORDOFAN
ABYSSINIA
Gondokoro
Albert Nyanza
Victoria Nyanza
Kilimanjaro
Mt. Kenia
ZANZIBAR
L. Moero
Bangweolo L.
Lake Nyassi
Tete
Zambesi R.
Loanda
St. Paul de Loanda
Benguela
HAMARA LAND
L. Ngami
Limpopo R.
GREAT NAMAQUA LAND
KALAHARI DESERT
TRANSVAAL
ORANGE FREE STATE
BASUTO LAND
NATAL
CAPE COLONY
BECHUANA LAND
MOZAMBIQUE CHANNEL
MOZAMBIQUE
ZANGUEBAR
SENEGAMBIA
SENE
GAMBIA
FREE TOWN
SIERRA-LEONE
LIBERIA
MONROVIA
KONO MTS.
KUMASSIE
ASHANTEE
DAHOMEY
BENIN
CAMEROON
BIAFRA
GULF OF GUINEA
CONGO
LOANGO
ANGOLA
BENGUELA
Congo or Livingstone R.
White Nile
Blue Nile
Juba R.
Webi R.
Rufiji R.
Tamatave
MAURITIUS I.
Ankober
Berbera
GULF OF ADEN
Mt. el Mussid
LA TRIBES
GALLA TRIBES
AMHARA
GONDAR
SHOA


EGYPT, ABYSSINIA, &c.
Scale of Miles
100 0 100 200 300
MEDITERRANEAN SEA
A S I A
PERSIAN GULF
RED SEA
GULF OF ADEN
INDIAN OCEAN
LIBYAN DESERT
Nubian Desert
SAHARA
NUBIA
ARABIA
ABYSSINIA
SOMALI
Alexandria
Port Said
Damietta
Jerusalem
Dead Sea
Petra
CAIRO
Suez
Akaba
Mt. Sinai
Medinet el Fayoom
Siwah
Siwah Oasis
Wah el Belmeya
El Kasr or Lesser Oasis
Farafreh
El Kasr Dakhel
Wah el Khargeh or Greater Oasis
Minieh
Manfalut
Siout
Tahta
Girgeh
Kenek
Thebes (Ra.)
Luxor
Esneh
Edfou
Koom Ombo
Koobnieh
1st. Cataract
Assouan
Syene
TROPIC OF CANCER
Kalabshee
Sabooa
Derr
Ipsambol
2nd. Cataract
Sarpnah
Selima
Mt. Elba
C. Elba
Jeddah
MECCA
Ras Rowsy
Medina
Yembo
Ras Benass
Ras Mohammed
Gulf of Suez
Gulf of Akaba
Gulf of Berenice
Sedinga
Ammara
Timneh
3rd. Cataract
Hannek
New Dongola
Abu Hammed
Suakin
Sorlol
4th. Cataract
El Bagara
Tokar
Tabab
Handak
5th. Cataract
Old Dongola
Bir Malha
El Mekheir (Berber)
Ambukol
Bishdreen Desert
El Damer
El Efun
Bir Simrie
Gummer
6th. Cataract
Shendy
Farsan Archip.
Dhalac Archip
Cameran (Br.)
Amphilla
Sana
Damar
Medwe
Khartoom
Halfaia
Keren
Massuah
Suene
Kailub
Kassala
Bicha
Zoulla
Gataena
Abu Kharraz
Senafe
Adowa
Axum
Haniah Is.
Edd
Mocha
Aden
Ain B.
Tendelty
Dabassi
Bara
Elais
Sennar
Abba I.
El Obeid
Sherkin
Aiteab
Tajurrah
Gulf of Tajurrah
Durdera
Bender Gori or Lasgori
Meid
Ungor
C. Guardafui
Tubeldieh
Tasain
Koldaji
Danab
Boselli
Sokota
Aussa
Assal
Zeylah
Zeara
Berbera
Shegga
Fazaklo
Godera
Magdala
Dunas
Asandabo
Angolalla
Ankobar
Harar or Adari
Waramo
Nogal
Hofrat
Bahr el Homr or Bahr el Arab
Market
Sobat R.
Rek
Long
Zibers
Adiel
Sabbi
Mvolo
Ngarage
Bombo
Lado
Ismailia (Gondokoro)
Tawali
Gerad
Dollo
Mudug
Bad
Ras Awath
Obbia
Shidele
Webbe R.
Tarrangolle
Apuddo
Faloro
Uando
Munzas
Mondu
Juba R.
Mara
Banasa
Ganana
Bardera
Warsheik
Magadoxo
Merka
Brava
Ras Asuad
Murchison Falls
Karuma Falls
Masindi
Vacovia
Albert Nyanza
Piaggia's Great Lake
Samburu L.
Baringo L.
Ripon Falls
EQUATOR
Victoria Nyanza
Beharini
Mt. Kenia
Dana R.
Kakunga
Kismayu
Rumanika
Kagehyi
Ukerewe
Blue Mountains
Longitude East 35 from Greenwich
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SPAIN.

RECORDED history gives the Phœnicians the credit of having first established colonies upon the shores of Spain, which at that time was occupied by Celtic tribes. Later appeared the Greeks, who called the country Iberia, which name gave way to that of Hispania, from which the modern name is derived, when the Romans took possession of the country. After them the Carthaginians appeared, conquering a stronghold upon the country and establishing cities, one of which, Cartagena, situated upon the Mediterranean coast, is now a handsome city of 80,000 inhabitants. After the Punic wars the Romans again obtained possession of Spain, which readily improved the opportunity offered of advancement in civilization. In the reign of the Emperor Constantine, Christianity, which was introduced earlier, became the general religion. In the year 409 the country was overrun by vast hordes of barbarians who crossed the Pyrenees and made a clean sweep of the country, and in 412 the Visigoths invaded it, and a Gothic monarchy was established by their King, Athaulf, in Catalonia. Its first written laws were given to Spain by one of the Gothic dynasty of kings. In 711, the Moors subjugated a large portion of the country, and held the southern part of it as a dependency of their North African dominions. From A.D. 717, their Spanish territory was governed by Emirs, appointed by the Caliph of Damascus. Under the independent dynasty which the Moors established Southern Spain flourished in agriculture, commerce and the arts and sciences. Wars occurred constantly between the Moors and the Gothic princes, who had maintained possession of the Cantanabrian territory, but the Christian kingdoms continued to grow in power, and, uniting at last, they succeeded in driving the intruders from the country. In the Kingdom of Granada the Moors made their final stand, but at last they succumbed to the troops of Ferdinand and Isabella. Of the Christian States at this time Arragon and Castile were by far the most powerful, and in time their sway extended all over the country. Ferdinand II., the last of the Arragon sovereigns, by his marriage with Isabella, Queen of Castile, followed by the conquest of Granada in 1492, and of Navarre in 1502, accomplished thus the unification of Christian Spain, which now entered upon its most glorious epoch. Spanish discovery gave America to the civilized world, and, Spanish conquest extending her rule over Naples, a large portion of North, Central and South America, the new Kingdom at once attained rank as one of the great powers of the world. New riches were secured by Cortez' conquests in Mexico, and Pizarro's in Chili and Peru, but in the reign of the Philips the decline of Spanish power began and accelerated. Portugal had been conquered in 1581, but in 1640 she obtained her independence, and during this period Spain suffered other serious diminishments of power and resources. The reign of Charles III. promised to bring the country back to something like its old glory, but his successor embroiled the country in inglorious wars which cost it its valuable possession of Louisiana, in America, ceded to France in 1800, while England destroyed the Spanish navies. Ferdinand VII. was removed from the throne by Napoleon, who placed his brother Joseph in his stead. England, at that time at war with Spain, acknowledged Ferdinand as King, and joined the Spaniards in their endeavors to drive out the Bonaparte, and lent the support of its armies under Wellington. Ferdinand's rule was re-established, but his reign was marked by insurrections which cost the country very dearly. His daughter, Isabella II., succeeded him, but her political and personal misconduct brought about many rebellions, that of the Carlists in 1834–9 being the most serious. In 1868 she was driven from the throne and forced to fly to France, and two years later Prince Amadeo of Italy, the second son of King Victor Emmanuel, was elected by the Cortes and declared King. A year later he abdicated, whereupon Don Carlos, a grandnephew of Ferdinand VII., claimed the throne, and made an unsuccessful attempt to gain possession of it. A democratic federal republic was then declared and a President elected, who had two successors within three months. Castelar, who had been elected in September, 1873, resigned in 1874. The Cortes dissolved, and General Serrano was charged with the duty of forming a new ministry. He coped successfully with the Carlists, who were then making strenuous efforts to gain a foothold, and retained executive power until January, 1875, when Alfonso XII., son of the ex-Queen Isabella, who had been declared King at Santander the month previous, landed in Spain and took the field against Don Carlos. He was finally victorious. Don Carlos surrendered his claim to the throne, and the young King at once devoted his attention to the work of reorganizing the Government and the development of the country. He died in 1885.

In June, 1876, a Constitution was proclaimed, which provides that the Government shall be a constitutional monarchy, giving the executive authority to the King and placing the legislative power in the Cortes with the King. The Cortes comprises a Senate, which is divided into three classes, and a Congress, consisting of Deputies, one of whom is allowed to every 50,000 inhabitants. Spain is now under the regency of Queen Maria Christina, widow of Alfonso XII., their son, Alfonso XIII., being a minor.

PORTUGAL.

LIKE Spain, Portugal was early inhabited by the Celts, who were succeeded in turn by Phœnicians, Carthaginians and Greeks, who built cities along the coast which formed the nuclei of colonies. Like Spain, too, it suffered from Vandal and Visigothic invasion. In the eighth century the Moors conquered the country, which they held until about the end of the eleventh century, when Alfonso VI. of Castile and Leon drove out the invaders. It was the son of Henry of Burgundy, Don Alfonso Henriques, who established the Portuguese monarchy, after defeating the Moors at the battle of Ourique in 1139. Eight years later the Moors were deprived of Lisbon, and a century later they were entirely driven from the country. Alfonso's successors proved able monarchs, and under their rule the country advanced rapidly. During the reign of King John I. began the era of Portugal's superiority in seamanship, which made Lisbon a city of such vast commercial power. In 1415 the country gained its first foothold abroad, when the sea-captain Zarco discovered the island of Madeira. Later on, Portuguese sailors discovered the Azores and Cape Verde. In 1486 Bartholomeu Dias discovered, and in the following year Vasco da Gama doubled the Cape of Good Hope, and pursuing his journey reached Malabar. Still more important for Portugal, as events turned out, was the discovery by Pedro Alvarez Cabral, in 1500, of Brazil, which was followed by the formation of a colony which has since developed into the Empire of Brazil. A dispute with Spain over a question of succession brought about a war with that power, and for sixty years thereafter Portugal remained in subjection to her neighbor on the Iberian Peninsula. In 1640, however, the Duke of Braganza headed a Portuguese revolution, was successful, and ascended the throne as John IV. In 1807, the Government having taken sides against Napoleon, the latter invaded the country, declaring it part of France, and the throne vacant. When the French soldiers arrived, the Regent, John Maria Joseph, Prince of Brazil, who ruled in the place of Queen Maria, who was insane, sailed for Brazil. At Napoleon's downfall he appointed his son, Dom Pedro, Regent of Brazil, and returned to Portugal. In 1822 Dom Pedro became Emperor of Brazil, the succession being accomplished without bloodshed, and a few years later he came into possession of the crown of Portugal also, which he surrendered to his daughter, Donna Maria, preferring to remain at Rio Janeiro. Civil war arising not long afterward, the British interfered, and since then they have held the country in a condition of semi-subjugation.

The Government is a hereditary constitutional monarchy, with the legislative power vested jointly in the sovereign and a Cortes which comprises a Chamber of Peers and a Chamber of Deputies, of which the King nominates the former for life and the people elect the latter.

SWITZERLAND.

ORIGINALLY occupied by Celts, Switzerland became a Roman province and was held as such for several centuries, until successive invasions of German tribes occurred. In the fifth century the Burgundians, Goths and Allemanians divided the province among them, but in the century following the Franks captured it. Christianity was introduced in the seventh century by Irish monks, and monastic institutions were founded. In the latter part of the ninth century Switzerland was taken from the Franks, Germany gaining the northern and Burgundy the southern portion of the land. An alliance was formed later by Zurich, Berne and Basle against the neighboring powers which held the country, and a brave endeavor in the direction of independence was made. Attempts by Austria to incorporate the Swiss Cantons with her domain were nobly opposed, and the war which followed, lasting 200 years, sundered the relations of Germany and Switzerland. Imperial power was assumed in 1273 by Rudolph of Hapsburg, a Swiss


ARCTYC OCEAN
North East C.
New Siberia
Lena Archip.
Grinnell Land
Ellesmere Ld.
PARRY IS.
Melville I.
Banks Ld.
C. Bathurst
Victoria Land
Pt. Barrow
Mackenzie's Basin
C. Lisburne
ALASKA
C. Pr. of Wales
East Cape
Behring Straits
RUSSIAN EMPIRE
SIBERIA
R. Lena
R. Yenisei
SEA OF OKHOTSK
SEA OF KAMTCHATKA
Aleutian Is.
Great Bear L.
Great Slave L.
HUDSON BAY
L. Athabasca
Sitka I.
Vancouver I.
Victoria
R. Columbia
L. Winnipeg
L. Michigan
Ottawa
Chicago
Toronto
Montreal
UNION
CANADA
UNITED STATES
San Francisco
S. Diego
New Orleans
Peninsula of California
Gulf of Mexico
Havana
Vera Cruz
C. St. Lucas
TROPIC OF CANCER
Sandwich Is.
Acapulco
CHINESE EMPIRE
Pekin
Sea of Japan
JAPAN ISLANDS
Tokio (Yedo)
Shanghai
CHINA
Canton
Hong Kong
PHILIPPINE IS.
Ladrone Is.
HIMALAYA MTS.
R. Ganges
Calcutta
BAY OF BENGAL
CHINA SEA
Ceylon
EAST INDIA IS.
BORNEO
JAVA
MICRONESIA
Caroline Is.
Marshall Is.
EQUATOR
PACIFIC
INDIAN OCEAN
Papua or New Guinea
Torres Str.
MELYNESIA
Marquesas Is.
Galapagos Is.
Guayaquil
Feejee Is.
N.W. Cape
AUSTRALIA
New Caledonia
Norfolk I.
Society Is.
TROPIC OF CAPRICORN
Pitcairn I.
C. Leeuwin
NEW SOUTH WALES
Sydney
Melbourne
Tasmania
Bass Str.
Auckland
NEW ZEALAND
Cook Str.
Chatham I.
OCEAN
Juan Fernandez
Valparaiso
Valdivia
Wellington I.
Campbell I.
Tierra del Fuego
ANTARCTIC
C. Adare
South Victoria Land
Mt. Erebus
Mt Terror
Mt. Ross
REGIONS
THE
MERCAT


ARCTIC OCEAN
North East Land
SPITZBERGEN
North East Land
North East C.
C.Mauritius
New Siberia
NOVA ZEMBLIA
KARA SEA
Gulf of Ob
Lena's Archip.
North C.
C.Brewster
Walgnz I.
Loffoden Is.
Lapland
ARCTIC CIRCLE
ICELAND
Archangel
Faroe Is.
Shetland Is.
Orkney Is.
Stockholm
St.Petersburg
RUSSIA IN EUROPE
SIBERIA
Yakutsk
Lena R.
Tobolsk
Moscow
BRITISH ISLANDS
Berlin
Prussia
Vienna
Paris
Kiev
Sea of Aral
L.Balkash
MONGOLIA
MANCHOORIA
CHINESE EMPIRE
Pekin
Sea of Japan
JAPAN
Tokio (Yedo) ISLANDS
Lisbon
Madrid
Rome
Constantinople
TURKESTAN
HIMALAYA MTS.
TIBET
Hoang Ho
Lee Kiang
Shanghai
PACIFIC OCEAN
Gibraltar
Madeira
Canary Is.
Jerusalem
Teheran
PERSIA
Delhi
Calcutta
CHINA
Canton
Formosa
Hong Kong
Sandwich Is.
Timbuctoo
Muscat
Bombay
Arabian Sea
BAY OF BENGAL
PHILIPPINE ISLANDS
Manilla
Caroline Is.
Marshall Is.
C.Verd
C.Palmas
Monrovia
Ceylon
Maldive Is.
C.Comorin
C.Guardafui
Aden
Mecca
Abyssinia
Red Sea
Nile R.
L.Victoria Nyanza
L.Tchad
Niger R.
Senegal R.
Timbuctoo
Sahara or Great Desert
EQUATOR
Ascension
St.Helena
C.Frio
Trinidad
E.Congo
C.Amber
Madagascar
Mauritius
C.St.Mary
INDIAN OCEAN
Java Sea
Batavia
Java
Borneo
Celebes
Papuan or New Guinea
Torres Str.
C.York
Gulf of Carpentaria
New Hebrides
Feejee Is.
POLYNESIA
MELANESIA
AUSTRALIA
QUEENSLAND
NEW SOUTH WALES
VICTORIA
Norfolk I.
C.Leeuwin
K.George Sd.
Adelaide
Melbourne
Sydney
Bass Str.
Tasmania
Auckland
NEW ZEALAND
Wellington
Dunedin
Hobart Town
C.of Good Hope
Kerguelen's Land
ANTARCTIC
Enderby Land
Kemp Land
C.Adare
South Victoria Land
Mt.Erebus
Mt.Terror
Mt.Ross
REGIONS
Long. 30 East 45 from 60 Greenwich 90 105 120 135 150 165 180 165
15 0 15
90 75 60 45 30 15 0 15 30 45 60 75

nobleman, and in 1291 the Cantons of Uri, Unterwalden and Schwyz formed a league against foreign oppression. In 1315 this was established as a perpetual confederacy, and in the course of time other Cantons joined them. Lucerne, Zurich, Glarus, Zug and Berne by 1353 had become members of "The Perpetual League of the Old Places of the Confederacy," which was the foundation of the Swiss Confederation. In 1415 the inhabitants of the Cantons invaded and annexed parts of the Austrian territory, and three years later they annexed Ticino. In 1481 Solothurn and Freiburg were admitted, which was followed by internal dissension, lasting until 1499. Two years later Basle and Schauffhausen were admitted, as was also Appenzell in 1513. There were now thirteen Cantons, and the true independence of the State was established. In 1531 war broke out between the Catholics and the Protestants, and the former were victorious. Berne and Zurich managed to maintain the neutrality of Switzerland during the Thirty Years' War, and in the Treaty of Westphalia in 1648 Switzerland was acknowledged as an independent State. At the time of the French Revolution Switzerland was invaded by two French armies, which captured the city of Berne and proclaimed the Helvetic Republic, designating Aarau as the capital. In 1802, civil war dividing the Cantons, Napoleon undertook to reorganize the country, and the people accepted his suggestions, but in 1809 a new Constitution was formed which added three new Cantons—Geneva, Vallais and the Prussian principality of Neufchatel—to the nineteen which had been framed by Napoleon. The European powers ratified this change and declared the perpetual neutrality and inviolability of the Confederation. During the excitement aroused by the French Revolution agitations in the direction of liberty resulted in the reorganization of cantonal constitutions, which were made more liberal and democratic. Religious troubles reappeared in 1834 and lasted for some years, finally resulting, in 1847, in the expulsion of the Jesuits and the suppression of the monasteries, which excited the anger of some of the powers which attempted to intimidate Switzerland. In 1848 Neufchatel declared her independence of Prussian control, which nine years later was acknowledged. Switzerland made, in 1860, an unavailing protest against the annexation of Savoy to France.

By the revised Constitution of 1874 it is provided that all the rights of sovereignty not transferred to the Confederation shall be exercised by the twenty-two Cantons. Every Canton's Constitution is guaranteed if it is republican in form, if it has been adopted by a majority of the people, and if it can be revised on a demand of the majority of the voters. There is a Federal Assembly which comprises a National Council and a Council of States. The executive authority is exercised by a Federal Council, which has seven members, each of whom has a department. The President and Vice-President of the Federal Council, also President and Vice-President of the Confederation, are chosen for one year only and are selected from the Council by its members.

TURKEY.

IN 1330 begins the Ottoman career of conquest. About that time Orcan, leader of a tribe inhabiting the Altai Mountains, led his hardy Janizaries against Nicomedia and Nicola. He called the gate of his palace the Sublime Porte, and himself Padisha, both of which expressions are still extant. His successor located his capital at Adrianople, and during his rule the Turks fell under the relentless hand of Tamerlane, who, in 1402, routed them in battle, but effected no permanent occupation of their territory. Recovering from the rude assault, the Turks, in less than a generation, greatly humiliated the Byzantine Empire, which ceased to exist later, giving way before the irresistible Mohammed II., who transferred the seat of empire from Adrianople to Constantinople. The capture of Constantinople was followed by other important cities in Eastern Europe, and during the next century the Turkish Empire constantly grew in power. Greece and Arabia were added to the domain of the Porte. The glory of Islam culminated in the reign of the third Sultan of Stamboul, Solyman the Magnificent, which lasted from 1520 to 1566. His ambition was to conquer Western Europe and establish the Crescent throughout the continent, and for many years it looked as though he would succeed. He did extend

his empire considerably, but his grand hope was destined for non-fulfilment. He died in Hungary, where he was conducting a victorious campaign, in 1481, and with his death began the decline of the Ottoman Empire. It was by no rapid national decay that the Turk fell from his high estate under Solyman to his lowly condition under Abdul Hamid, the present ruler. For centuries Turkish incursions carried terror into the lands of Russia, Hungary, Poland and Italy, while the whole of Europe felt apprehensive of Ottoman supremacy. It was not until near the close of the eighteenth century that the tide set in steadily against the Turk. Catherine of Russia was the first to bring the Crescent low, but England and France objected to the partition of the empire between Russia and Austria, and obtained for the Sultan terms of peace which secured the autonomy of the Ottoman Empire. This has been maintained since by the friendly interposition of the anti-Russian powers, who see that so long as the Sultan of a people who have lost all aggressive ambition rules at Constantinople the "balance of power" is safe. In the war with Russia in 1877–8 Turkey suffered a very serious loss of territory, the treaty of Berlin reducing her area from 1,742,874 square miles to 1,116,848 square miles, and her population from 28,165,000 to 21,000,000. Turkey in Europe was reduced more than one-half in both territory and population, the cessions under the treaty being as follows: Bulgaria, Eastern Roumelia, Bosnia and Herzegovina, Roumania, Servia, etc., and parts of Thessaly and Epirus. In the same year, too, the island of Cyprus was placed under British control.



VIEW OF CONSTANTINOPLE.

As to the Government of the Ottoman Empire, it can generally be said that the precepts of the Koran are the foundation of its fundamental laws. Absolute power is vested in the Sultan, as long as his acts remain in conformity with Mohammedan doctrine. Forms of constitutional limitation upon the arbitrary authority of the Sultan have been adopted recently, but in point of fact the legislative and executive departments of the Government are in the hands of his Sublime Highness, and the functions of law are directed by two officers, the Grand Vizier, who looks after secular affairs, and the Sheik-ul-Islam, who is the head of the church. There is a body or class known as the Ulema, which comprises the "Mufti," or interpreters of the Koran, the judges and high functionaries of the law. "Bey" is a general term, applying to all important civil officers, while "Pasha" is the designation of tax-gatherers and other officers who are both military and civil in function. A ministerial council, or cabinet, called the "Divan," which is presided over by the Grand Vizier, exists, comprising eight ministerial departments, namely, War, Finance, Marine, Commerce, Public Works, Police, Justice and Education. The empire is divided into vilayets, under Governors, of which there are four in European Turkey, exclusive of the district of Constantinople. Cruelty and venality are the main qualities of the Governors, whose rule is very arbitrary.

ROUMANIA.

AMONG the minor States of Europe, those which received their autonomy at the treaty of Berlin are worthy of close attention. Roumania is the name conferred upon Moldavia and Wallachia when they became united under one prince and one administration as a province of Turkey, in December, 1861. The representatives of the people met at the capital, Bucharest, May 21, 1877, and proclaimed absolute independence of Turkey, which the treaty of Berlin confirmed the following year. The Government is an elective and strictly limited constitutional principality. Karl I. is the present Prince.

BULGARIA.

Bulgaria, an autonomous principality tributary to Turkey, constituted previous to 1878 the Turkish Danubian vilayet. Her subjection to the Porte dates from 1392, but nearly five centuries of Moslem misrule and oppression have not deprived the people of their national pride and desire for independence. In 1876 they rose against their oppressors, but were unsuccessful, and the atrocities which the ferocious Bashi-Bazouks committed in suppressing the revolt, together with the lamentable condition of other Turkish provinces, led to the Turko-Russian war. At the treaty of Berlin, the erection of a Bulgarian principality was not permitted, but the province was granted its autonomy. Eastern Roumelia was incorporated with the principality in 1885 under the name of South Bulgaria.

SERVIA.

Servia gained independence of Turkey at the same time and in the same way as Roumania. It was virtually free, however, as early as 1829. Under the present King, Alexander, the fifth of his dynasty, a government similar to that of Roumania is carried on.

BOSNIA and HERZEGOVINA, according to the same treaty, were to have their administration conducted by Austria-Hungary.

ANDORRA.

In the Eastern Pyrenees, nestling among the high mountains, is the tiny European republic of Andorra, which has maintained its independence since the days of Charlemagne. Its area is 175 square miles, and the burden of its government rests lightly upon no less than twenty-four Consuls.

SAN MARINO.

Of all the republics in the world that of San Marino enjoys the double distinction of being the oldest and the smallest. Situated in Eastern Central Italy, it has an area of thirty-three square miles, and a population of 8,000, an army of 819 men, 131 officers, while the Government consists of a Council of 60 members (20 nobles, 20 townsmen, and 20 peasants), of whom two act jointly as Regents.

MONACO.

Still smaller than San Marino is the principality of Monaco, whose ruler conducts the affairs of a population of a little over 12,000 within an area of 8 square miles. It is a favorite resort for invalids, but its chief notoriety comes from its legalized gambling-houses, and patronized by European tourists. From this source a revenue of $350,000 per annum comes to the Prince of Monaco, who spends it in Paris, where he has his residence.

GREECE.

BUT little remains to-day of the glories which once belonged to this most remarkable and interesting country. Of the early history of Greece but very little authentic knowledge is available. Hellen was claimed by the Greeks as their common ancestor, the popular belief being that from his sons, Dorus, Æolus, and his grandsons, Ion and Achæus, sprang the four different branches of the nation: the Dorians, from whom the Spartans were descended; the Ionians, from whom sprang the Athenians; the Æolians, whose dialect developed itself into the songs of Sappho; and the Achæans, who occupied Mycenæ, Argos and Sparta. Previous to the Hellenic inhabitants of Greece were the Pelasgians, who had a different language. Many indications go to show that Egyptian and Phœnician immigration had a large influence upon Grecian civilization, whose alphabet is apparently of Phœnician origin. What is known as the heroic age of Greece is a fragment of the poetic imagination of such minds as Homer and other great poets, who told the story of the great deeds of heroes, who, descended from the gods, performed deeds of supernatural valor and strength. Still, modern research has shown that much which has been gravely condemned as fiction has been actual occurrence, the persistent spade of Schliemann even establishing the fact that the siege of Troy was no myth, and that the story of Achilles' wrath may to-day be read in the ruins of the ancient city.

From first to last Greece was divided into numerous independent States, whose union was confederate rather than federal. Authentic history dates from 776 B.C., when the first Olympiad was held. Sparta at this time was the smallest and least important of the States, but the genius and valor of her citizens made her famous and strong, and by the sixth century before the Christian era foreign conquest and internal advancement had placed her in the lead as to power and wisdom of administration. Greece was at this time the acknowledged centre of European civilization. Persia now began to dispute the Hellenic advancement, and the battles of Marathon, Salamis and Thermopylæ were among the most famous encounters between these powerful nations. In B.C. 431 began the Peloponnesian war, the great civil war of Greece, which continued with hardly any cessation of hostilities for twenty-seven years. In 344 began the interference by Macedon in Peloponnesian affairs, which led to the wars which ended with the supremacy of the Macedonians, whose rule lasted until 325 B.C., when the Athenians accomplished temporarily their independence. In B.C. 214 occurred the first collision between the Greeks and the Romans, who in B.C. 200 invaded the country, and three years later conquered the Macedonians. About twenty years later war arose again between the Romans and Macedonians, who were defeated and their country made a Roman province. In B.C. 146 occurred the battle of Leucopetra, which completed the dissolution of the last of the Greek leagues, the Achæan, and henceforth Greece was under the Roman yoke. The Roman Senate, and afterward the Emperors, treated the fatherland of their own civilization with kindness, and it was not until the Byzantine Empire placed its cruel foot upon the Greek neck that all free institutions and popular rights were disregarded.

Though conquered in war, Greece still remained the leader of the world in literature and the arts. Her temples and statues, her schools of philosophy and rhetoric, still maintained her dignity among the nations. After the Byzantine invasion the adherents of the ancient religion only retained the name of the ancient Hellenes, and in the reign of Justinian, in the sixth century, the teaching of doctrines opposed to Chistianity was forbidden. From the fifth to the eighth century Slavic and other foreign people appeared in Greece, but they were finally expelled. Its ancient inhabitants regained the country, though the Slavic influence is still evident in certain parts of it, especially the Southern Peninsula. In the eleventh century, the Normans appeared from Sicily and plundered and ravaged the cities of Thebes, Athens and Corinth. In 1203 the Latin Princes appeared in the Crusade, conquered Constantinople, and divided Greece among them, establishing a number of principalities, which Frankish governments were swept away by the Turks in 1453, when they captured Constantinople and extended their conquests in a few years over the whole country, which they made a portion of the Turkish Empire. Abject misery was the condition of the country under the Turks. In 1687 the Christian League, under Venetian leadership, besieged and took Athens, but a few years later the Venetians were expelled, and the Moslem once more ruled Greece, keeping it in a most deplorable condition of subjugation. Toward the close of the eighteenth century the national spirit again began to assert itself, and secretly the preparations were begun for throwing off the Ottoman yoke. They were completed in 1821,

when the Greeks arose in insurrection against the oppressor. On their side was the sympathy of the whole civilized world, and money and men were supplied the struggling State from all directions. In 1822, the Moslems increased the execration in which they were held by massacring over 100,000 of the inhabitants of the island of Scio, reducing the population from 120,000 to 16,000. Four years of heroic war found the Greeks exhausted and at the mercy, if such existed, of the conqueror, but the diplomatic interference of England, France and Russia stayed the ferocious hand of the Turk, and proposed that Greece should be constituted as a tributary province, with the right to choose its own government. Greece was willing to accept the terms; the Ottoman Empire rejected them. War was declared by the allied powers against Turkey, whose fleet was almost destroyed, and in 1828 they decided to create Greece an independent kingdom. The crown was offered to two foreign princes and was declined by the first, while the second was assassinated. In 1833 Otto, son of the King of Bavaria, assumed the reins of government, and in 1835 the capital was established at Athens. In 1844, in recognition of a popular clamor, a Constitution was granted to the people, and after a stormy reign of nearly thirty years he was requested to abdicate, and accepted the invitation. An election by universal suffrage resulted in the choice of Prince George of Denmark, who accepted the throne on condition that England surrender the protectorate of the Ionian Islands, against which the people had rebelled, which was granted by that power. In 1863, the new King was crowned as George I., whose reign has since proved acceptable to the people. In 1866, a revolution in Crete strained the relations of Greece and Turkey, but the danger was finally averted.

Greece is governed in accordance with the Constitution elaborated by the constituent assembly in 1863 and adopted in 1864. A single chamber of representatives, known as the *Boule*, hold the legislative power. Annual meetings are held by the Boule, whose members are elected by manhood suffrage for a term of four years. Executive power is vested in the King and his responsible Ministers, the heads of the following departments: Presidency of the Council, Interior, Finance, Justice, Education and Ecclesiastical Affairs, War, Marine and Foreign Affairs. A Council of State is provided for, with power to review or amend bills passed by the Deputies, but of late years its services have not been employed.

ASIA

INCLUDING

CHINA, JAPAN, BRITISH INDIA, PERSIA, ARABIA AND PALESTINE.

ALTHOUGH containing a vastly larger population than any other of the continents—its inhabitants in fact outnumbering those of the remainder of the earth—Asia, on account of her not having come to any great extent under the influences of modern civilization, is as weak in power as she is strong in numbers. In ancient days this was different: the world's history was then largely framed by its Asiatic sons, who contended successfully against Egypt and Greece, and later on helped to build up the glory of the Macedonian and Roman Empires. It was from the regions north of the Caspian Sea that the Huns came, and, following the star of empire, marched westward and settled down in various parts of Europe. Over the plains of the Slav swept the victorious armies of Timour and Genghis Khan, and later the Caliphs, at the head of their Arabian troops, carried the Koran and the sword throughout Asia, Europe and Africa, and established religious nationalities which are, to a certain extent, formidable even in this day of their decadence. Before their march the Roman Empire gave way, and the Turkish dominion raised, which for so many years held other European powers in awe. With a population of 825,954,000, as compared with that of Europe, 357,379,000, it seems as though the day must come when Asiatic supremacy will exist as a fact. Asia has a great deal to learn, however, of the modern spirit and system of government, before it can hope to cope with the more persistent, audacious and intelligent continent to the west of it

CHINA.

MYTHOLOGY, rather than history, must be credited with the earlier chronicles of the Chinese, whose actual record, however, extends back 2,400 years previous to the Christian era, and contains the record of a great flood, which many have supposed to be identical with the deluge of the Pentateuch. Certain it is that the Great Wall, which extends 1,250 miles along the northern boundary of China, was erected 250 years before the Christian era, when the Tsin dynasty was founded by Chwang-Siang. In the thirteenth century a Mongol dynasty was formed by Genghis Khan, after his capture of Pekin. European visits began in this century, when Marco Polo reached China by the overland route. Portuguese and Dutch traders followed, and in the seventeenth century England visited the country, and after several unsuccessful negotiations the East India Company was allowed, in 1684, to trade with the natives. But little was done, however, until the opium trade set in, at the beginning of the present century, and soon attained enormous proportions. An attempt was made by the Chinese Government to exclude the pernicious drug, but the traders of the East India Company evaded the restrictions placed upon its entry, and this led to the Anglo-Chinese war, known as the opium war, which closed with the treaty of Nankin and the opening of five ports—Canton, Amoy, Foochow, Ningpo and Shanghai—to the British in 1842. American trade with China was inaugurated in 1784, when the ship Empress made a successful voyage from New York to the Celestial Empire. In 1844 the first American treaty of amity and commerce between the United States and China was negotiated at Macao, and in 1867–8 a more important one was negotiated by the Hon. Anson Burlingame, which was revised in 1880, in order that an understanding might be reached with the Chinese Government in relation to the emigration of its subjects to this country, where opposition to Chinese cheap labor had been aroused in California and other sections. Such treaties as the Europeans have with China have been wrested from that country by force of arms, and during a war in 1860 the French troops captured the Emperor's summer palace, at Pekin, and carried off several millions of dollars' worth of booty. The most important event of modern domestic Chinese history was the Taeping revolution, which lasted from 1851 to 1864, and had for its object the overthrow of the Manchoo or foreign dynasty. Serious anti-Christian riots occurred in 1891, in which many missionaries and other foreigners were killed and their property destroyed.

An Emperor rules China, aided by the Interior Council Chamber, which is mainly composed of high nobles. The provinces are governed by Imperial Governors and Executive Boards. Bribery and corruption prevail throughout the civil service, which is a monstrous institution. Competitive examination is the basis of the service, the intention being to secure for official positions the most intelligent and best educated men of the empire.

JAPAN.

ORIGINALLY inhabited by a race known as the Ainos, who had a written language and were fairly advanced in civilization, the island of Japan subsequently fell into the hands of the Mongols, the present occupants being akin to the Chinese, whom they resemble in appearance. According to Japanese history, the ruling dynasty claims twenty-five centuries of unbroken succession, descent being claimed from the first Mikado, Jimmu Tenno, who was reputed to have been of divine descent. Buddhism was introduced into Japan in the sixth century. Marco Polo was the first European to write of Japan, and the first Europeans to land upon its shores were Portuguese mariners. About the middle of the sixteenth century one of the smaller islands was visited by Fernam Mendez Pinto. In 1549 St. Francis Xavier landed and introduced Christianity, and he was followed by many others. In 1615 the priests were exiled, and nine years

later all foreigners except the Chinese and the Dutch were expelled from the island, and the emigration of natives was prohibited. In 1637 the massacre of the Christians began, and for over two centuries Japan was left to itself. In 1854, however, Commodore Perry, of the United States Navy, effected a commercial treaty with Japan, which resulted in opening Japanese ports to American ships, and after a struggle with the old court party the civilization of the West began to grow in popular favor, liberal ideas struck root, and national progress was evidenced in a number of valuable reforms. In 1868 the executive power of the Japanese Government was concentrated in the Mikado, and since then the work of advancement has gone on very rapidly, promising to open up to American enterprise a large field for the exportation of her machinery and other manufactures.

Absolute power in temporal and spiritual affairs is vested in the Mikado. He is assisted in government by an Executive Ministry and a Privy Council; and, since 1890, by a National Parliament of two Houses. The House of Peers consists of 10 life members, 139 elected nobles, 59 imperial nominees, and 44 elected men of mark; the House of Representatives contains 300 elected members.

BRITISH INDIA.

EARLY Indian history, extending back millions of years, is composed of a confused mass of fabulous chronicles. Research by careful historians leads to the belief that the Aryan Hindoos settled the country some fifteen centuries before the Christian era, at which time the Brahminical religion and the social institution of caste are believed to have been in existence in undeveloped shape. About five centuries before Christ the northwestern provinces of the country were conquered by the Persian monarch Darius, and later Alexander the Great invaded India and conquered some of its provinces. In the eighth century the province of Scinde and the Southern Punjaub were invaded by the Mohammedans, who were later expelled by the Hindoos. In the beginning of the eleventh century they returned and conquered all Northern India. At the close of the sixteeenth century occurred the invasion of Tamerlane. In 1526 Baber, the Mogul Sultan of Cabul, invaded India, and established the Mogul dynasty, whose strength culminated with Aurungzebe, who subdued almost the entire peninsula, and Mohammed Shah. In 1739 occurred the invasion of Nadir Shah, King of Persia, who overcame the empire and occupied Delhi, from which city he removed enormous stores of precious stones and metals. The restoration of the Mogul dynasty was followed by another incursion of the Mahrattas, who in the eighteenth century were entirely overthrown by the Afghans. European attention was at last called to the country, and in the sixteenth century settlements were made upon the coast by Portuguese explorers whom the Dutch expelled later. Great Britain, represented by the East India Company, effected settlements during the seventeenth century, and in the middle of the eighteenth came into conflict with the French, who had also gained a foothold, and after a hard struggle overcame them. Under Lord Clive the British troops vanquished the Emperor of Delhi and the King of Oude, and gained possession of Bengal, Berar and other provinces, which acquisitions were added to as years went by. For many years British rule was quietly submitted to by the natives, its enforcement being accomplished by the army of native troops, under English officers, armed by the East India Company.

In 1857 a revolt occurred, and the Kings of Delhi and Oude, at the head of the rebellious Sepoys, threatened for eighteen months to wrest the mastery of India from England. Frightful massacres, attended with indescribable atrocities, were perpetrated by the rebels, and the measures of reprisal adopted by the English were hardly less terrible. After the rebellion had been crushed the British Government assumed direct control of the country, the East India Company being deprived of a monopoly which had brought in an annual revenue of many millions. Since then the British have largely advanced their Indian frontiers. In 1876 Queen Victoria was proclaimed Empress of India.

The Government, which regulates the affairs of about 300,000,000 of people, is practically a military despotism, which is made possible by the division of the native population into Hindoos and Mohammedans. A Governor-General, appointed by the ruler of Great Britain, holds the executive authority and acts under the English Secretary of State for India, who is advised by a Council, a majority of whom are appointed by the Crown. Lieutenant-Governors of the provinces and minor officers are appointed by the Governor-General. The officials are almost all Englishmen. Self-government prevails in the villages and townships, which levy and expend their own taxes under a system which has prevailed in India for ages, and which provides the only exception to the rule that all power rests in the hands of the resident Europeans.

AFGHANISTAN AND BELOOCHISTAN.

AS a nation, Afghanistan, although only dating from 1747, when the successful soldier Amhed Khan assumed regal power, and possessing but a small territory and population, has, by her wars with foreign powers, so impressed the world with the warlike character of her people, that her history possesses a unique interest. Amhed Khan's most important war was with the Mahrattas, whom he overthrew in 1761, and when he died, twelve years later, he left to his son, Timour, an empire reaching from the Indus to the Oxus, while Khorassan, Beloochistan and Scinde acknowledged his rule as tributary provinces. After Timour came anarchy, and the Punjaub and Scinde were lost, while Persian encroachments endangered the country. Diplomatic relations with the English, who regard Afghanistan with peculiar interest, as being the "key to India," were opened in 1809, and a permanent English resident at the Ameer's court was appointed in 1837. The relations of the two countries failed to remain friendly, and in 1838 Lord Auckland, the Governor-General of British India, declared war against the Ameer, Mohammed Khan, who was defeated. Satisfied with the invasion they had accomplished, the English withdrew, leaving an army of occupation behind them. In 1841 Akbar Khan, son of the deposed Ameer, organized a conspiracy against the English occupants of the country, which resulted in the murder of the British Resident and Envoy, after which the invaders promised to leave the country, Akbar Khan agreeing to provide them with an escort. This promise was not kept, and the army, together with camp-followers, the whole amounting to about 26,000 people, while leaving the country by way of the Khyber Pass, in the depth of winter, were attacked by the fanatical tribes of the districts, who killed men, women and children. Of the whole host only one man escaped to convey the tidings to the nearest British port, Jelalabad. An expedition was immediately fitted out in India, and the country was desolated, the fortresses of Ghurzee and Cabul being taken. Notwithstanding this terrible lesson, the Afghans, in 1846, allied themselves with the Sikhs against the British, and raised a revolt in the Punjaub, which was quelled only after severe fighting. The present Ameer, Abdur Rahman Khan, maintains the throne amid vicissitudes caused by the insurrections led by his own relatives. In 1879 the inhabitants of Cabul arose in revolt, and assassinated the British Resident and a large number of other foreigners, which led to a war in which the British arms, after desperate fighting, were successful, and British influence in the national policy was firmly established. The Government of the country is a monarchy. The natives are divided into clans, ruled over by chiefs. Revenue is raised by taxation, an officer collecting it in each province. Justice is administered in the towns by the Cadis.

BELOOCHISTAN, a country lying to the south of Afghanistan, is not considered of strategic value by either British or Russians. In 1839 the British stormed the capital and killed the ruler, after which they occupied the country for several years. In 1854 a treaty was formed between England and Beloochistan, and another in 1876, by which Beloochistan became a British protectorate, the Khan binding himself to oppose all the enemies of Great Britain, and to have no relations with other foreign States.

PERSIA.

AUTHENTIC Persian history begins with the revolt under Cyrus against Astyages, the Median King, which resulted in the foundation of the Persian Empire. Joining with Cambyses and Darius, Cyrus subdued Lydia and Asia Minor, and crowned his career by the capture of the city of Babylon, the metropolis of Assyria. Darius carried the Persian arms to the borders of Thrace, but was defeated at Marathon, and his son Xerxes was not less unfortunate. About 330 years before the Christian era Persia was invaded by Alexander the Great, of Macedon, who extinguished the empire, which up to his coming had ruled the world. After Alexander's successors came the Parthian dynasty, which was overthrown in the third century, when the ancient laws and religion were re-established

under a descendant of the famous Cyrus, and the Sassanidæ dynasty thus formed ruled with great energy until 628 A.D., when its last representative was slain, and the country fell a prey to the Mohammedan Arabians until 868, when a native dynasty was established. A Mongol invasion occurred in the thirteenth century, and in the fourteenth Tamerlane swept the land with his Tartar followers. Of the Suffavean dynasty which succeeded, the most famous representative was Nadir Shah, who invaded India and carried away $100,000,000 worth of spoils from the city of Delhi. Of late years Persia has not been able to do anything worthy of her ancient glories. Russian encroachments have deprived her of important provinces. In 1856-57 she engaged in war with England and was defeated, which event led to a friendly feeling towards that country which, doubtless, prompted the Shah, Nasr-ed-Din, in 1874, to visit Europe.

The Government of Persia is an unlimited despotism, the Shah being absolute in his monarchial powers. Direct taxation defrays current expenses, and the country is free from national debt. Law, as laid down in the Koran, is administered by mollahs (judges), whose decisions are given in accordance with the side of the case which possesses the greater power to bribe the court.

ARABIA.

CLAIMING descent from Ishmael, the Arabs have always been and still are a wandering, wild, uncontrolable people, whose career and present condition seem to fulfil the angelic prophecy. The aborigines of Arabia were probably the Cushites, who passed into Africa and were succeeded by a race descended from Abraham. After the destruction of Jerusalem large numbers of Jews entered Arabia, which subsequently welcomed the doctrines of Mohammed, with whose coming the history of the country really begins. Becoming united, they grew in power until in Europe, Asia and Africa empires were brought under their dominion. While producing important changes in the destinies of other nations, Arabia herself underwent no great improvement, and when her day of conquest was over the Turks found her an easy prey, and in the sixteenth century captured Yemen, which they lost a century later. The Portuguese, too, conquered Muscat, while the Russians gained some temporary advantages in Arabia. In the eighteenth century the Wahabees made their appearance, and, though Mehemet Ali checked their progress, their influence is still felt throughout the land. Hedjaz and Yemen are now under Turkish rule; while much of the remaining country is under British influence, exercised in the case of Oman through the Sultan of Muscat.

PALESTINE.

ORIGINALLY inhabited by distinct nations, of whom the Canaanites, Amorites, Jebusites, Kenites and Perizites were the principal, and whose origin is not known, the land of Palestine was invaded by the Israelites after their escape from the hands of their Egyptian masters and their wanderings in the wilderness. Acting under the divine command, as interpreted to them by their leaders, they entered upon a merciless war of extermination of the idolatrous tribes who inhabited the land, which they partitioned off as follows: The tribes of Reuben and Gad and one-half the tribe of Manasseh took the territory east of the Jordan; Judah, Simeon, Dan and Benjamin occupied the southern portion; Zebulon, Asher and Naphtali obtained the northern division; while the other half of the tribe of Manasseh, together with Issachar and Ephraim, secured the central portion. Being provided for by tithes, the Levites, in their priestly function, were not given any separate territory, but were scattered among the various cities of the other tribes. For over three centuries the tribes were ruled by Judges raised to that dignity by the people for valorous deeds in war or display of qualities of statesmanship, and during this time the nation was practically a confederation of republics, their bond of union being made up of their common origin, language and religion, and the ever-present danger of invasion by external foes. Among the most famous of the fifteen Judges who ruled the land were Gideon, Jephtha, Barak, Samson, Deborah,

Eli, and Samuel, who was the last of the Judges and the first of the Prophets, but the two latter exercised also priestly functions. Although their rule was satisfactory, the people clamored for a King, and the monarchy was established with Saul, a Benjaminite, as ruler. A great warrior, he led the hosts of Israel in a succession of victories, but his merciful treatment of a conquered people brought about the opposition of Samuel. The King's son-in-law, David, having slain the Philistine giant Goliath in battle, became suddenly popular, and, as he was taken up by the priestly party, he first aroused the jealousy and then incurred the enmity of Saul, who caused him to flee from the country. With an army of brother outlaws David made war upon the Philistines, who had befriended him in his hour of need, and on the death of Saul and his son, Jonathan, his tribe of Judah proclaimed him King. Saul's son, Ishbosheth, was acknowledged by the remainder of Israel, and a civil war followed, which was ended by the death of Ishbosheth, and the assumption of the sovereignty by David. Under King David war was actively pursued against the natives. Jerusalem was wrested from the Jebusites, and the Israelitish domain extended south and west to Egypt and north to the land of the Phœnicians. With the last-named people, who had attained a high degree of civilization and were learned in the arts and sciences, the Hebrews remained on terms of friendship. David's successor, Solomon, raised the power of Israel to its pinnacle of glory. Under his rule commerce and trade were cultivated, the country was fortified, profitable foreign alliances were made, and the beautiful Temple of Jerusalem was built. Great attention was paid to the military arm of the government; the army was enlarged and strengthened, and with its aid neighboring nations were kept in subjection and forced to pay heavy tribute. Internal disorder followed the death of Solomon, whose last days were not marked by the wise and strong government which preceded, and under the rule of his son, Rehoboam, the heavy taxation of the people induced a revolt of ten tribes, who proclaimed Jeroboam King in Israel, which comprised the land beyond Jordan and that to the north of Benjamin. Judah and Benjamin alone remained loyal. Many wars between the rival nations followed. Under licentious Kings the people of the ten tribes waxed in wickedness, until about 700 years B.C. the Assyrians swept down upon them, destroyed their capital of Samaria and carried the people into captivity. No record of their fate exists. They disappeared entirely from history, though every now and then some one or other of the nations of the earth is recognized, according to Biblical prophecy, as being the identical "ten tribes" of Israel. In Rehoboam's reign Judah was invaded by the Egyptians, who pillaged the temple. Wars with the bordering nations occurred from time to time, and civil war was frequently aroused by the misrule of wicked Kings, whom even the fierce denunciations of the great Prophets could not entirely restrain. Weakened by these causes, the country came under tributary subjection to the Babylonian Empire, and the downfall of the people was brought about by the revolt of Zedekiah, who declared the nation independent, and defended gallantly but unsuccessfully the capital, Jerusalem, against the Babylonian armies. In 588 B.C. the city was captured, its walls and temple destroyed, and its citizens carried into Babylon, where they remained captive for seventy years. Their return to their native land was permitted when the Babylonians were vanquished by the Medo-Persians, and Darius, Ahasuerus and other Kings allowed them to rebuild their city and temple, and granted them many additional privileges. Under these favorable conditions they increased in strength and numbers, and when, about two centuries before Christ, the Syrians sought to prohibit the Hebrew religion, they arose in arms and fought for their religious liberty with such courage and vigor that the period of these wars, extending from 167 B.C. to 105 B.C., is looked upon as the heroic era of Jewish history. Forty years later, however, the Romans conquered the country, and Judea became a province of that great power. Native rulers, known as tetrarchs, were given slight local power, but they were powerless to check the oppressions of the conquerors, and sixty-six years after the birth of Christ, whose earthly ministry was made while the people were in the depths of misery, the Jews rebelled and brought upon their country a scourge in the shape of Roman armies under Vespasian and Titus. After a four years' siege, during which the inhabitants endured indescribable sufferings with unparalleled fortitude, Jerusalem fell; the temple was once more abased; such of the inhabitants as survived were sold into slavery; the Hebrew nation as such passed out of existence. After the Roman rule passed away the Byzantine monarchs held the country. Christianity becoming widespread, Palestine became a centre of religious interest as the birthplace and scene of the ministry, death and resurrection of the Savior. Thousands of pilgrims visited the "Holy Land," and the rebuilding of Jerusalem was commenced. In the earlier half of the seventh century Palestine was conquered by the Mohammedan Arabs, but in 1099 the warriors of the first Crusade captured the sacred city, and made Godfrey of Bouillon King of Jerusalem, who extended his territory until it comprised the whole of Palestine. This lasted twenty years only, and after further crusades against the Saracens, in which the Christians were more or less successful, the latter were, in 1291, expelled by the Mamelukes, who ruled the land until 1517, when it fell into the hands of the Turks, who still hold it. Several efforts have been made to have the European Jews return to their fatherland, but they have declined to abandon the profitable occupations elsewhere to become the agricultural colonists of a not very fertile land. Under Turkish rule Palestine is part of the province of Syria, and comprises the sub-pashalics of Acre and Jerusalem.

SIAM.

EARLY in the seventeenth century the Spanish, Portuguese, Dutch and French obtained admission to the Siamese ports, and England shared their privileges about half a century later. Each of these nations made strenuous endeavors to gain the preponderating influence over the Siamese, and the French seemed for many years the favorites; but in an outbreak which occurred several of their missionaries and traders were slaughtered, and this event was followed, on the part of Siam, by the inauguration of a policy of exclusiveness, which lasted until about fifty years ago, when Great Britain, France and the United States made treaties with Siam. The royal dignity is nominally hereditary; but each sovereign appoints his own successor; and besides, about the court is the Council of State, which, when the King dies, may defeat his will about the succession of the throne. There are laws to which the King must conform, and which render the Government, in effect, a constitutional monarchy.

AFRICA.

SECOND only to Asia in point of size, the continent of Africa, including the islands contiguous to its shores, has an area of 11,854,000 square miles, yet is the least important of all the great divisions of the globe, judged by the standard of civilization and commercial prosperity. It is only within a few years past that the true quality of the interior of Southern Africa has become known, through the researches of European and American explorers in the "dark continent." Attempts to colonize were begun by the French, on the west coast, in the seventeenth century, and, at the Cape of Good Hope (the southern extremity of the continent, which was first doubled by Vasco da Gama) the Dutch established a port in 1650. An English trading company, a century later, also located here. The earliest explorers were James Bruce, who in 1772 visited Abyssinia and discovered the sources of the Blue Nile, and Mungo Park, who ascended the Niger in the earlier years of the present century, and was killed in 1806 in the kingdom of Houssa by the natives. The desire to discover the source of the Great Nile has impelled several explorers to pierce Central Africa. Up to his time, the most successful of these was Dr. David Livingstone, who travelled in 1849 through the country watered by the Zambesi, and made a vast number of important discoveries. Burton, Speke and Baker, in their hunt for the Nile's headwaters, discovered lakes Tanganyika, Victoria Nyanza and Albert Nyanza, which were also visited by Livingstone, who defined the great water system of the Lualaba or Chambeze. Henry M. Stanley, an American journalist, acting in the capacity of special correspondent of the New York *Herald*, visited Africa on a commission to find Livingstone, who had not been heard from for some years, and in 1871 he discovered him at Ujiji in great destitution, but still anxious to press forward into the continent, for which he had organized a new expedition. In 1873 Livingstone died, and in the following year his body was brought home and interred in Westminster Abbey. Stanley, after parting with Livingstone, explored the Congo and has since made discoveries which place him in the front rank of African travelers. Commerce is following fast in the footsteps of these adventurous men, and the colonization of the fertile territories they have visited and described is only a matter of time. In 1890 France owned 2,300,248 square miles; Germany, 1,035,720; Great Britain, 1,909,445; Italy, 360,000; Spain, 210,000; Portugal, 774,993; while the Congo Free State comprised 1,000,000, and Liberia about 14,300.

EGYPT.

EGYPT is another of those countries whose prehistoric ages are wrapped in mystery as impenetrable as the sources of her Nile, whose exact location long baffled the most enterprising of explorers. Great interest attaches to the country's early annals, but the stories of the dynasties which succeeded Menes, the founder of Memphis, of the rule of the Pharaohs, and the Ptolemies and the Cleopatras, though pregnant with true historical interest, cannot here be told, and it will suffice to quote the language of a graceful historian, who wrote: "It (Egypt) attained a high position for wealth and the institutions of civilized society when all the surrounding countries dwelt in the darkness of barbarism. It had a well organized and efficient government long before the national greatness of the Hebrews." Moslem rule prevailed in the country after their conquest of it in 639. The Caliphs were expelled by the Turcomans, who gave way before the Mamelukes in 1250, whose rule continued until 1517, when Selim, Sultan of Turkey, put an end to their dominion and organized the land as a dependency of Turkey. For over two centuries the descendants of the vanquished Mameluke chieftains opposed the Turks. A descent upon Egypt was made by the French under Napoleon in 1798, but they were obliged to withdraw, and the Mamelukes were not overcome until the treacherous massacre of their leaders established the Pasha in quiet upon his viceregal throne. Mehemet Ali, from an obscure position as an Egyptian villager, rose to the position of Viceroy, after a severe conflict with the Ottoman forces, and under him the country made great advancement, and, while nominally tributary to Turkey, Egypt enjoyed nearly all the attributes of an independent nation. He died in 1849, and in 1863 Ismail came to the throne, a man of such Oriental extravagance, both in public improvements and personal expenditures, that he became bankrupt, and his abdication was brought about by the combined pressure of his English and French creditors. His son, Mehemet Tewfik, succeeded him, but the actual control of the nation was placed in the hands of an International Commission of Liquidation. The burden of paying the interest on the enormous national debt which Ismail rolled up, amounting at the close of 1890 to about $535,000,000, rests heavy upon the Egyptian people, and the rebellion against Tewfik, under Arabi Bey, and the war which England waged against the Egyptians, in support of the Khedive, are of too recent occurrence to require more than a passing mention. Of late years the influence of England and France—Egypt's largest creditors—has alternately predominated in the management of Egyptian affairs, but the success of the English arms in the late war, in which the French declined to participate, has made the country virtually a protectorate in the hands of England, whose control of the Suez Canal is a matter of vital importance to that power.



A STREET IN CAIRO, EGYPT.

UPPER AND LOWER NUBIA

In 1820 the Egyptian Viceroy Mehemet Ali pursued the Mamelukes southward and into Nubia, where they took refuge. In the following year he conquered the country and made it an Egyptian province. By the rebellion in the Soudan, Nubia was brought under the sway of the Mahdi; it is now subject to his successor, Khalifa Abdullah el Taashi.

ABYSSINIA.

EARLY tradition says that the famous Queen of Sheba included part of this country within her realm, and that its subsequent rulers were descended from her. Fabulous as is the early history of the country, there is no doubt that its people had, even in remote antiquity, made great advancement in civilization. In the middle of the fourth century Christianity was introduced and made great headway. A couple of centuries later the Abyssinians invaded Arabia and conquered a portion of the southwestern province of Yemen. In the tenth century the reigning dynasty was overthrown by a Jewish princess, after which the country remained in anarchy for three centuries, when the restoration of the empire, under Icon Amlac, brought about an improved condition of affairs. In the fifteenth century friendly relations were cultivated with the Portuguese, under the influence of whose missionaries the royal family adopted the Roman Catholic religion. In 1541 the Turks threatened the country, and the Portuguese assisted the Abyssinians, but were defeated; and in 1542 it was invaded by the Gallas, a race from the south, who conquered and held a great part of it. Although fairly well received at first, the Roman Catholic religion failed to gain a strong hold upon the people, who, in 1632, arose against the priests, and, after killing many of them, expelled the remainder. Theodore, who became King in 1855, proved a sagacious and energetic monarch, and under him Abyssinia was extended over several adjacent provinces, which had for years maintained their independence. A misunderstanding occurring between him and Great Britain in 1860, he imprisoned the British Consul, with some missionaries, and treated them cruelly for some years. In 1868 a British army, under Lord Napier, invaded the country, captured Theodore's stronghold, Magdala, and released the prisoners. Theodore, when the battle turned against him, committed suicide, and the country broke up into various petty States; which, however, under Menelek of Shoa, are being again brought together.

CAPE COLONY.

IN 1486 Bartholomeu Dias, a Portuguese navigator, discovered the Cape of Good Hope, which Vasco da Gama sailed round in the following year. About the middle of the seventeenth century the Dutch planted colonies near the Cape, conquering and enslaving the natives. Increasing in numbers and growing in strength, the colonists, in 1795, rebelled against the mother country, whereupon the Prince of Orange sent an English fleet which established British rule. In 1802 the colony was restored to the Dutch, who, by 1806, had extended their domain eastward to the Great Fish River and westward nearly to the Orange River. In that year the British again took possession of the colony, which they have since retained, though not without great difficulty and expense, the native Kaffirs, a handsome and warlike race, proving a stubborn enemy, in the attempted subjugation of whom several sanguinary wars have been waged. Government at the Cape was established, as it now exists, in 1853, when the authority was vested in a Governor and an Executive Council approved by the Crown, while a Legislative Council of twenty-two members and a House of Assembly represent the people.

MADAGASCAR.

MADAGASCAR became known to commerce in the early part of the present century, at which time the greater part of the island was under the rule of King Radama I., with whom England formed a treaty in 1816. From the English Radama learned the European art of war, and his drilled troops easily accomplished the subjection of the whole island. Dying in 1828, he was succeeded by Ranavala I., who used her power to crush out the Christian religion, which had been readily received by the natives. Europeans were banished from the island and the missionary schools were closed. Her cruelties at last aroused the Europeans to action, and in 1845 a combined English and French force made an attack upon the port of Tamtave, but were unsuccessful. Ranavala died in 1862 and was succeeded by her son, Radama II., who ceded territory to France. He was assassinated in 1863, and his wife, Rasuaherina, succeeded him. At her death a dispute between the natives and Europeans over the succession was ended by the elevation of Rainitaiarivoy to the throne as Ranavala II. She became a Christian and was baptized, together with her husband, the Prime Minister and several of the native nobility. Kalimalaza, the chief idol, and the temple which contained it, were destroyed, and, stimulated by these acts of devotion, the people rapidly became converted to Christianity.

THE BARBARY STATES.

THE region in North Africa known as Barbary comprises the countries of Algeria, Morocco, Tunis and Tripoli. ALGERIA'S history runs back to the time of Carthage. Moors and Numidians at this time occupied it; later it became a Roman province, and after them the Vandals and Arabians held sway over the land. In the tenth century the Moors organized an independent State, but for several centuries Algeria was nothing else than a nest of pirates, whose vessels swept the seas as far as the North Sea, and forced tribute from all countries which carried on commerce by water. In 1655 the capital, Algiers, was attacked by the English, and in 1682 and 1683 by the French, but no great impression was made. A Spanish expedition against the city in 1775 was signally defeated. In 1815 Commodore Decatur, of the American navy, after defeating an Algerian squadron off Carthagena, threatened to bombard Algiers, and secured the release of American prisoners held by the Dey and his abandonment of a claim he had made for tribute. In 1816 a British Admiral bombarded the city and released all Christians held in bondage. In 1830 France sent an expedition of 100 ships-of-war and 357 transports to Algeria, and July 4 of that year Algiers surrendered, and the French took possession of it and established a military regency. A holy war was declared against the invaders, which, under the Emir Abd-el-Kader was carried on until 1847, when he surrendered to General Lemonciere. The French proclaimed Algeria a permanent possession, but the people were restless under the French yoke, the Kabyles rising in insurrection in 1851 and 1857, and several revolts having occurred since. At present the country is in quiet submission to France, where it is represented in both houses of the National Assembly. The military rule was abandoned in 1871, and a civil Governor-General and a Colonial Council administer the affairs of State.

MOROCCO, not having enjoyed the blessing of occupation by foreigners to any very great extent, does not show the same promise of advancement which Algeria at present affords. Its early history consists of a succession of wars and invasions. In the eighth century the Arabs conquered the country, and since then they have ruled it. In 1471 the seaport of Tangier was captured by the Portuguese, who ceded it to the English in the seventeenth century. They held it for only a brief period, and in 1844 it was bombarded by the French. In 1859 the Spaniards declared war against Morocco and captured Tetuan, these

visitations all resulting from the piratical habits of the maritime Moors and their enslavement of Christians who came within their power. A Sultan rules over the country, but his control over the interior is slight.

In the palmy days of its great commercial city, Carthage, TUNIS was one of the most important countries of the world. Its inhabitants, descendants of the Phœnicians, conquered Sicily, Sardinia, Corsica, and part of Spain, and visited the Scilly Islands and Albion in their trading vessels. Its famous generals, Hamilcar, Hannibal and Asdrubal, threatened the Roman power, but the victory of Scipio brought the proud city low, and the country was made a Roman province. Later on the Vandals and Mohammedans overran it, but in the thirteenth century its people obtained their independence. Charles V. of Spain reduced Tunis in the sixteenth century and made it subject to that country, and in 1575 the Turks conquered it. Like the inhabitants of the other Barbary States, the Tunisians practiced piracy and enslaved Christians, which led them into conflicts with various European powers. Tunis may now be considered an informally annexed dependency of France, nominally under the dominion of the Bey, but in reality under the control of a French Resident, The late rulers—Achmet, Mohammed, Sadyk and Sidi Pasha—have proved enlightened sovereigns, and under their rule the country has made considerable advancement.

TRIPOLI, the least populous of the Barbary States, became subject to Rome during the Punic wars, fell into the hands of the Vandals in the fifth century, and was conquered by the Turks later. Its capital, Tripoli, was bombarded by the French in 1683, and early in the present century Commodore Decatur punished the inhabitants for injuries their pirates had inflicted upon American commerce. From 1815, the time of Decatur's last visitation, piracy and Christian slavery have not existed in Tripoli. It is a Vilayet or Province of the Ottoman Empire; its government is administered by a Governor-General; and the revenue is chiefly raised by tribute. The dominant religion of all the Barbary States is Mohammedanism.

REPUBLICS IN SOUTH AFRICA.

PARTLY from national sentiment, but more as a matter of interest, the Dutch settlers at the Cape of Good Hope, after the acquisition of their country by Great Britain in 1806, emigrated in large numbers and, moving north and east, conquered from the warlike Zulus the country which is now known as NATAL, and settled there. More than 10,000 of the Boers, as they were called, had thus wandered away when the British colonists made claim to the territory which they had occupied, and in 1842 took possession of it. Others of the emigrant Boers settled on the table-land region to the north of the Orange River and founded the ORANGE FREE STATE, whose President, in 1848, made an attempt to drive out the British residents, but was defeated and driven from the country. In 1851 the British organized a colony of the Free State, but in 1854 they abandoned the enterprise and permitted the Boers to organize a government and guaranteed them complete independence. A third attempt by the Boers to establish a republic resulted in the colonization of the TRANSVAAL, whose independence was acknowledged in 1852. Success crowned this effort until the year 1877, when, the republic becoming bankrupt, annexation to Great Britain was suggested as a remedy. A vote was taken which resulted in the British taking possession of the country. Many of the resident Boers claimed that only a minority of the inhabitants voted upon the annexation question, and an emigration westward began, which resulted in the settlement of the Great Namaqua land, on the Western Coast north of the Orange River, a movement which was checked by the British, who claimed that the land was under their jurisdiction. In 1880 the Transvaal Boers, who had had enough of British rule, attempted to re-establish the republic. War ensued and an army which the British sent from Natal to quell the uprising was defeated with great loss. Further engagements with the Boers proved disastrous to the British, who finally abandoned the attempt to crush the republic.

Among the minor countries of Africa is LIBERIA, a negro republic on the grain coast of Upper Guinea. Liberia is the original accomplishment of an association known as the American Colonization Society, of which Henry Clay was President, and whose object was the foundation of a colony of emancipated American slaves. Failure attended the earliest attempt of the society, but, having obtained a suitable location in 1821, operations were commenced which resulted successfully. A town, which was called Monrovia, after the President of the United States then in office, was started, and a lot of land was given to each settler. In 1847 Liberia declared an independent republic, which in the following year was recognized by Great Britain and, later on, by others of the European powers. Although the prime object of the founders of the republic has never been realized, comparatively few emancipated slaves having left America to settle there, Liberia has enjoyed great prosperity and a healthy growth. Contiguous negro tribes have been included within its territories, which contain about 18,000 Americo-Liberians and 1,050,000 aborigines. A President, Senate and House of Representatives are charged with the government of the republic.

SIERRE LEONE, a British colonial settlement adjacent to and north of Liberia, was settled in 1787 by a body of several hundred destitute negroes who had been removed from London by a society of philanthropists. Three years later they were joined by over a thousand negroes from Nova Scotia. Although so near to the negro republic founded under American auspices, the latter is far healthier than Sierre Leone, which, perhaps, accounts for its falling far short of the progress accomplished in Liberia.

THE CONGO FREE STATE has sprung out of the discoveries of Stanley and the explorations of the International Association, founded at Brussels for the opening up to civilization of the Congo and its tributaries. Its autonomy was recognized during 1884 and 1885 by the leading powers of Europe, and by the United States, conditioned upon its maintaining the principles of free trade. There are twelve territorial divisions, the capital being Boma. The central government is at Brussels, and consists of the King of the Belgians as sovereign, and three departmental chiefs. On the Congo there is an Administrator-General and several European administrators of stations and districts. The rest of West Africa is variously "protected" by England, France, Germany and Portugal.

OCEANICA

OCEANICA, sometimes called Oceania, is the name applied to the fifth division of the globe, which comprises the Australian Continent and a majority of the islands lying between the Indian Ocean and the China Sea on the west, and the American Continent on the east. So vast is the number of these islands that only the historical facts relating to the largest of them can be mentioned. Australia comes under its own head. New Guinea was discovered by the Portuguese in 1511. It is now divided between Holland, England and Germany; the German portion is called Kaiser Wilhelm's Land.

Borneo, which, until the naturalist Wallace's explorations proved that New Guinea had the greater area, was believed to be the largest island in the world except Australia, was discovered in 1578 by the Portuguese. In 1690 they effected a settlement, but were soon driven out from it. In 1702 and 1774 England made unsuccessful attempts to colonize the island, but of late years she has managed to acquire a controlling influence over the northwestern coast of the island.

Sumatra, Java, Celebes are among the larger single islands, while among the most important groups are the Malay Archipelago, in which these are included, and almost all of which have been subjugated by the Dutch, the Spaniards, the Portuguese and the British; the New Hebrides and Polynesia, which general terms include, among others, the Hawaiian, which is one of the most important in the Pacific Ocean. In 1829 the independence of these islands was acknowledged by the United States, who were followed in 1843 by the British, and in 1844 by the French. Queen Liliuokalani, who succeeded Kalakaua, and is in many respects a progressive ruler, is the present sovereign of the islands.

New Caledonia, an island lying to the east of Queensland, was taken possession of in 1853 by the French, who established there a naval station and a penal colony, which are still maintained.

New Zealand was first visited by the Dutch navigator Tasman in 1642. A colony was first established in 1840. Gold fields were discovered in 1857 which brought a large immigration. Executive authority is vested in a Governor appointed by the Crown; there is also a General Assembly consisting of a Legislative Council and a House of Representatives.

Tasmania, formerly known as Van Dieman's Land, ceased being a penal colony in 1853, since which time its population and prosperity have largely increased. A Governor appointed by the Crown holds the executive; there are also a Legislative Council and a House of Assembly.

AUSTRALIA.

NOTHING was known of this vast island until 1606, when a Dutch sea-captain, sent from Java in the yacht Duyfen on a voyage of exploration of the New Guinea coast, viewed its northern shores. A Portuguese navigator the same year passed through Torres Strait. In 1619 the western coast was seen by a Dutch captain, who gave it the name of Endracht's Land, and in 1622 the southwest coast was discovered. Tasmania was, in 1642, visited by Tasman, who, a month afterwards, visited New Zealand. Frequent new discoveries were made from time to time, and in 1770, Captain Cook, then on his first voyage, explored nearly the whole of the eastern coast, which he called NEW SOUTH WALES. Passing through the strait which bears his name, Dr. Bass, a navy surgeon, ascertained the separation of Australia and Tasmania. In 1788 the English established a penal station at Botany Bay, New South Wales, which was afterwards removed to Sydney. The existence of a convict colony in their midst did not harmonize with the spirit of those who formed a free colony in New South Wales, and the station was removed to Tasmania, where it remained until its abolition, in 1853. Strenuous efforts were made to induce immigration to the colony, but up to 1850 only 50,000 Europeans had settled there. A year later, however, the discovery of gold in a district of New South Wales induced thousands to go to the mines, and within a year the population had increased by 200,000. All ordinary occupations were given up, the gold fever became epidemic, business was abandoned, values were inflated, and when the inevitable crash came, a large amount of suffering occurred. At last the crisis was passed, and, settling down to the development of the country, the people soon found that it had vast natural resources which outweighed in importance even the gold mines in productiveness. A Governor, nominated by the Queen, holds the executive power in New South Wales, and all enactments passed by the lower Legislature require royal sanction before becoming law.

QUEENSLAND, the colony which occupies the northeastern portion of the continent, was established in 1859. It has a Parliament of two houses, the Legislative Council and Legislative Assembly. A Governor appointed by the Queen holds the executive power.

SOUTH AUSTRALIA was first colonized in 1836 by British emigrants, who suffered greatly during the earlier years of their settlement. Copper mines of great richness were discovered in 1843, which gave impetus to the colony. Executive power is vested in a Governor appointed by the Crown, and an Executive Council composed of the responsible Ministers and members especially appointed. Legislative power is vested in a Parliament elected by the people.

VICTORIA was settled in 1835, and in 1840 an attempt was made to form a Government distinct from that of New South Wales, which was unsuccessful. In 1851 the colony became independent, and, the rush to the mines occurring in that year, arrivals at the rate of from twenty to thirty thousand a month began to swell its population. The Government is similar to that of the other colonies.

WESTERN AUSTRALIA was first settled in 1829, and its development was slow for many years. Lately, however, there has been an increase of agricultural prosperity. The colony is ruled, since 1890, by a Governor and a Parliament.

AUSTRALASIAN FEDERATION.

In 1889 the premier of New South Wales advised "a national convention for the purpose of devising and reporting upon an adequate scheme of Federal Government." The matter was taken up by the Australasian governments and a conference met in Melbourne in 1890 and adopted an address to the Queen embodying resolutions in favor of federation. The Australasian Federal Convention, which assembled at Sidney in 1891, passed a bill by which, subject to consent of the Imperial Parliament and of the colonies themselves, a Federal Constitution comes to pass for the Commonwealth of Australia; over which a Governor-General, appointed by the Sovereign, is to hold sway; each "State" to contribute to the Commonwealth Parliament representatives from its individual Legislature—this Parliament comprising a directly elected House of Representatives and a Senate composed of delegates from all the States. The Constitution provides for seven Ministers to assist the Governor-General, to be known as "the Queen's Ministers of State for the Commonwealth of Australia;" for a Supreme Court, whose functions render unnecessary the Privy Council; and for interstate free trade.

MAPS OF

States and Territories,

With Comparative Statistics, Area, Population, Railroads, Etc.



ALASKA was purchased from Russia in 1867 for $7,500,000, and the United States Government has long ago regained that sum from the seal fisheries.

Fishing, canning, trapping and mining are the principal industries.

Population in 1890, 4,303 whites, 23,274 Indians, 1,819 mixed and 2,399 Mongolians and others.

Climate modified by Pacific Gulf stream and long summer days.

The winter temperature at Sitka averages about the same as Washington, D. C.

MAINE (Pine Tree State)—Settled by French at Bristol, 1625; admitted to the Union, 1820. Ranks fifth in buckwheat and copper; eighth in hops and potatoes; eleventh in hay; twenty-first in wealth; twenty-seventh in population; thirty-third in miles of railway; thirty-sixth in square miles.

INDUSTRIES.—Extensive lumber and ship-building trade, fisheries, cotton, woolens, tanned and curried leather, boots and shoes, lime, etc. The agricultural portion of the State lies in the valley of St. John and between the Penobscot and Kennebec Rivers.

SALARIES OF STATE OFFICERS—Governor, $2,500; Secretary of State, $1,500; Treasurer, $2,000; Attorney General, $1,500; Adjutant General, $1,500; Sup. Common Schools, $1,500; Sec. Board of Agr., $1,500; State Librarian, $600; Chief Justice, $3,500; 7 Associated Justices, $3,000; Senators and Representatives, $150, mileage, 20 cents; District Judge, $3,500; Col. Int. Rev., $2,500; Collector of Customs, $6,000; Surveyor of Customs, $4,500; Pension Agent, $4,000.

NEW HAMPSHIRE (Granite State)—First settlement by the English at Little Harbor, 1623. Ranks third in manufacture of cotton goods; fifteenth in potatoes; twenty-second in wealth; thirty-first in population; thirty-seventh in miles of railway; forty-first in square miles.

INDUSTRIES—Largely engaged in manufacturing; the abundant water power affords great advantages. Agriculture, pasturage and drainage occupy a large number.

SALARIES OF STATE OFFICERS—Governor, $2,000; Sec. of State, $800 and fees; Treasurer, $1,800; Attorney General, $2,200; Supt. Pub. Ins., $2,000; 3 R. R. Commissioners, $2,000 to $2,500; Adjutant General, $1,000; Sec. Bd. Agriculture, $1,000; Librarian, $800; Chief Justice, $3,500; 6 Associated Justices, $2,700; Senators, Representatives, $3 a day and mileage; District Judge, $3,500; Pension Agent, $4,000; Collector Internal Revenue, $3,125.

VERMONT (Green Mountain State)—First settled by the English, Ft. Dummer, 1764. Ranks fourth in copper; seventh in hops and buckwheat; twenty-six in wealth; thirty-second in population; fortieth in square miles; forty-first in miles of railway.



INDUSTRIES.—The State is noted for its rich quarries of marble, soapstone and slate, which are worked at several points. It is also noted as a good grazing country. The dairy products are extensive and valuable. Stock raising is carried on to a considerable extent.

SALARIES OF STATE OFFICERS (Vermont) Governor, $1,500; Lieut. Gov., $6 a day; Secretary of State, $1,700; Treasurer, $1,700; Auditor, $2,000; Insp. Finances, $500; R. R. Com., $500; Adjutant General, $750; Supt. Public Instruction, $1,400; Chief Justice, $2,500; 6 Asso. Justices, $2,500; Senators, Representatives, $3 a day; Dist. Judge, $3,500; Col. Int. Revenue, $2,650; Collector of Customs, $1,000 and fees.



MASSACHUSETTS (Bay State)—First settled by English at Plymouth. Ranks first in cotton, woolen and worsted goods, cod and mackerel fishing; second in commerce; third in manufactories, printing and publishing; fourth in silk goods; fifth in soap and in wealth; sixth in iron and steel; seventh in population; ninth in agricultural implements; twenty-fifth in miles of railway; forty-second in square miles.



MANUFACTURES leather and morocco, bleaching and dyeing, flour and meal, lumber and furniture, molasses and sugar refining, machinery, ship building, animal and vegetable oils, fish industry.

INDUSTRIES.—Manufactures and commerce chiefly engage the attention of its inhabitants. The State ranks second in commerce, and third in manufacturing. The middle and western parts are fertile. Farms are highly cultivated. The cod and mackerel fishing is an important industry, the State ranking first in this industry.

Salaries of State Officers.

Governor	$[illegible]
Lt. Governor	[illegible]
Sec. of State	[illegible]
Treasurer	[illegible]
Auditor	[illegible]
Attorney Gen.	5,000
Chief Justice	7,000
6 Asso. Justices	[illegible]
District Judge	4,000
Senators and Representatives,	$[illegible] per year
Pension Agent	[illegible]
3 Col. Int. Rev.,	$3,000 to [illegible]
Col. of Cus., Boston,	[illegible]
Naval Officer	5,000

RHODE ISLAND (Little Rhody)—First settlement by the English, Providence, 1636. Ranks second in cotton, flax and linen goods; twentieth in wealth; thirty-third in population; forty-sixth in square miles; forty-seventh in miles of railway.

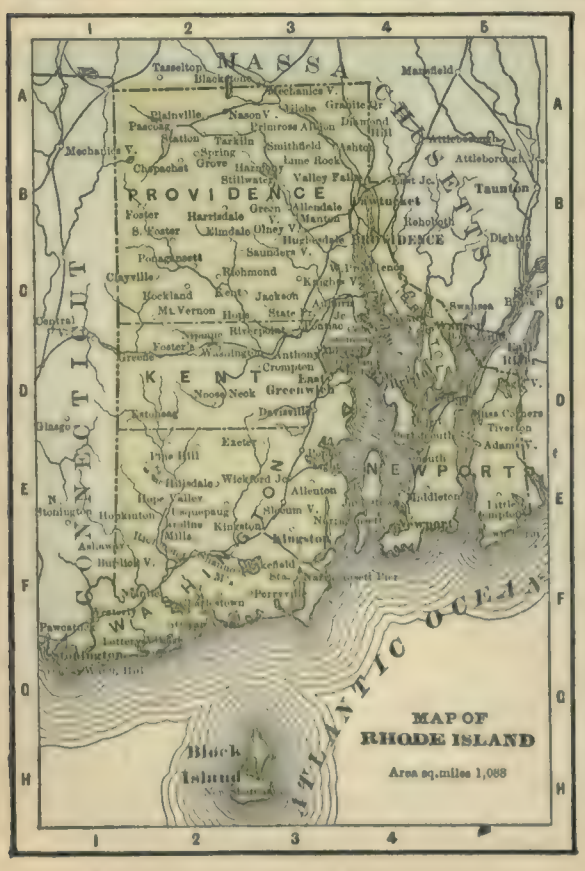
INDUSTRIES—The State is largely engaged in manufacturing, cotton and woolen goods being the largest. It has considerable commerce. Farming is done to some little extent; the chief productions are grains, fruit, butter and cheese.

Salaries of State Officers.

Governor	$3,000	Commissioner of Public Schools	[illegible]
Lieutenant Governor	500	Chief Justice	4,000
Secretary of State	2,500	4 Associated Justices	4,000
General Treasurer	2,500	Senators and Representatives	$1 per day; mileage [illegible]
State Auditor Insurance Commissioner	2,500	District Judge	[illegible]
Railroad Commissioner	1,000	Appraiser of Customs	[illegible]
Attorney General	3,500	Clerk	1,200
Adjutant General	600	3 Collectors	Fees

CONNECTICUT (Nutmeg State)—First settlement by the English, at Windsor, 1635. Ranks first in clocks; third in silk goods; fourth in cotton goods; eighth in tobacco; fourteenth in wealth; twenty-third in population; thirty-ninth in miles of railway; forty-fourth in square miles.

MANUFACTURES cotton and woolen goods, hardware, worsted, bleaching and dyeing, jewelry, plated ware, leather goods.



INDUSTRIES.—Agriculture and manufacturing are carried on to a considerable extent by its inhabitants. Several extensive granite and freestone quarries are successfully worked, as are also mines of silver, lead, copper and iron. Many of the towns have an extensive coasting trade and foreign commerce with the West Indies.

SALARIES OF STATE OFFICERS.—Governor, $4,000; Lt. Governor, $500; Secty of State, $1,500; Treasurer, $1,500; Comptroller, $1,500; Sec. State Bd. of Educat'n, $3,000; Adjutant Gen., $1,200; Ins. Com., $3,500; 3 R. R. Com. $3,000; Chief Justice, $4,500; 4 Asso. Justices, $4,000; Senators, Representatives, $300 and mileage; Dist. Judge, $3,500; 2 Col. Int. Rev., $3,000; 13 Deputy Collectors, $800 to $1,775; Stmpd. En. Agent, $2,500.



NEW YORK (Empire State)—First settlement by the Dutch at New York (New Amsterdam), 1614. Ranks first in value of manufactories, population, soap, printing and publishing, hops, hay, potatoes, buckwheat, milch cows, and wealth; second in salt, silk goods, malt and distilled liquors, and barley; third in agricultural implements, iron ore, iron and steel, oats and rye; fourth in wool and miles of railway; twenty-seventh in square miles.

INDUSTRIES.—In population, wealth and commerce New York is the first in the Union. The commerce extends to all parts of the world. Manufacturing is large, and constantly increasing. Agriculture is one of the chief pursuits, wheat and corn being the staple productions. The development of the salt springs of the interior is also one of the industries of the State. Its magnificent system of canals and railroads has done much to increase its domestic trade.

SALARIES OF STATE OFFICERS—Governor, $10,000 and house; Lieut. Governor, $5,000; Secretary of State, $5,000; Treasurer, $5,000; Comptroller, $6,000; Attorney General, $5,000; Chief Justice, $10,000; Senators and Representatives, $1,500 and 10 cents mileage; 3 District Judges, $4,000; Pension Ag't, $4,000; Postage Stamp Ag't, $2,500; Division Superintendent Railway Service, $2,500; 12 Collectors Internal Revenue, $2,750 to $4,000; Collector Customs New York, $12,000; Superintendent Assay O., $4,500.

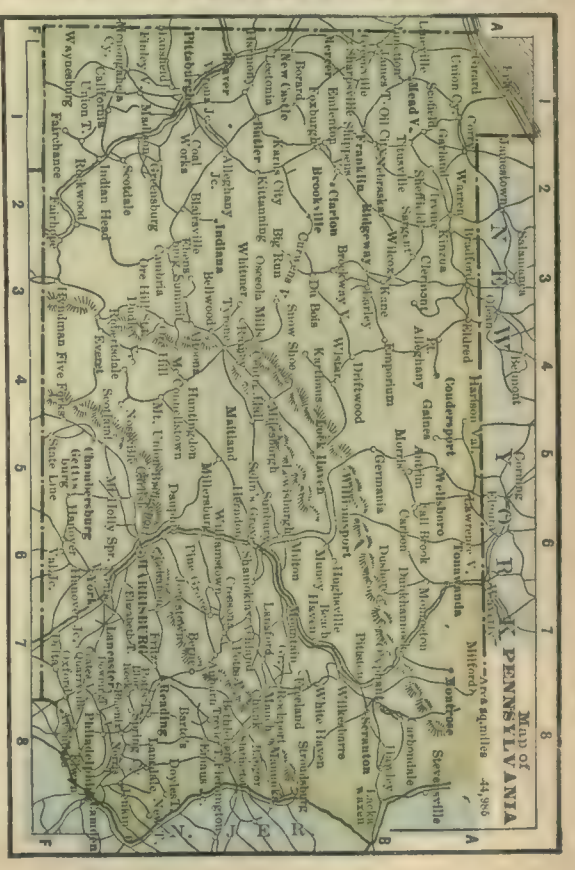


NEW JERSEY (Jersey Blue)—First settlement by the Dutch at Bergen, 1620. Ranks first in fertilizing marl, zinc, and silk goods; fourth in iron ore; fifth in iron and steel; sixth in buckwheat, manufactories, and soap; seventh in rye; twelfth in wealth; nineteenth in population; twenty-sixth in miles of railway; forty-third in square miles. Manufactures: molasses and sugar refining, flour, machinery, leather and leather goods, hats, caps and clothing, woolen and cotton goods, bleaching and dyeing, glass. Industries: The commerce of the State is small, its manufactures large and various. Its shad and oyster fisheries are extensive. Mining is also a leading industry. But its chief industry is agriculture and market gardening, the State being one immense garden, the mildness of its climate being such that small fruits are very productive, and being adjacent to the markets of New York and Philadelphia, farmers and fruit raisers find large profits from their labor. Salaries of State officers. Governor, $10,000; Secretary of State, $6,000; Treasurer, $6,000; Comptroller, $6,000; Atty. Gen., $7,000; Supt. Pub. Inst., $3,000; Adjutant Gen., $1,200; Librarian, $2 000; Chief Justice, $10,000; 8 Asso. Justices, $7,000; Chancellor, $10,000; Senators and Representatives, $500 a year; District Judge, $3,500; Superintendent Life Saving Service, $1,800; 39 Keepers, $700.

PENNSYLVANIA (Keystone State)—First settlement, English, Philadelphia, 1682. Ranks first in rye, iron and steel, petroleum and coal; second in wealth, population, manufactories, buckwheat, potatoes, printing and publishing; third in miles of railway, milch cows, hay, soap; fourth in oats and tobacco; fifth in silk goods, wool, malt and distilled liquors; sixth in salt, copper, and agricultural implements; eighth in horses and sheep; thirtieth in square miles. Industries: Pennsylvania ranks next to New York in wealth, population and manufactures. The people are largely engaged in agriculture, mining and manufactures; wheat, corn, orchard fruits, potatoes, butter and wool are the chief products. The farms are generally large and well conducted. The manufactories are very extensive, and comprise a great variety of articles; iron, cotton and woolen goods being the leading articles. In the production of coal and iron Pennsylvania surpasses all other States.

SALARIES OF STATE OFFICERS—Governor $10,000; Lieut. Gov., $3,000; Secretary of State, $4,000; Treasurer, $5,000; Auditor General, $3,000; Attorney General, $3,500; Chief Justice, $8,500; 6 Associate Justices, $8,000; Senat'rs and Representatives, $1,000 for 100 days, $10 per day, mileage 5 cents; 2 District Judges, $4,000; 2 Pension Agents, $4,000; 10 Collectors Internal Revenue, $2,375 to $4,500; Collector Customs Philadelphia, $8,000.





DELAWARE (Blue Hen State)—First settlement by Swedes at Cape Henlopen, 1627. Ranks twenty-first in orchard products; thirty-third in wealth; thirty-seventh in population; forty-fifth in square miles; forty-sixth in miles of railway.

INDUSTRIES—The principal pursuits are agriculture and mining. Fruit grows in great abundance. Considerable manufacturing is done in the northern part of the State.

SALARIES OF STATE OFFICERS—Gov., $2,000; Sec'y of State, $1,000; Treasurer, $1,700; Auditor, $1,200; Adjt. General, $200; Atty. Gen., $1,500; Supt. Public Ins., $1,500; State Librarian, $550; Chief Justice, $3,000; Chancellor, $3,000; 3 Asso. Justices, $2,500; Senators and Representatives, $3 per day and mileage; District Judge, $3,500; District Attorney, $200 and fees; Collector of Internal Revenue, $2,875.



MARYLAND.—First settlement by the English, 1634, at St. Mary. Ranks second in fisheries; fourth in coal; seventh in tobacco; eighth in copper; ninth in iron ore; thirteenth in wealth; twenty-third in population; forty-first in miles of railway; thirty-ninth in square miles.

MANUFACTURES: Iron and steel, copper smelting, sugar and molasses refining, cotton goods, lumber and furniture, malt and distilled liquors, tobacco and cigars, canned oysters, fish and vegetables, leather goods, clothing, printing and publishing.

INDUSTRIES.—The chief industry is agriculture; corn, wheat and tobacco being the leading products. Besides these, large quantities of other cereals are produced. Manufacturing is large. Mining of coal is extensive. The foreign commerce of the State is carried on chiefly through the city of Baltimore, which has all the advantages of a seaport. The chief exports are tobacco, flour, canned fruits and oysters.

SALARIES OF STATE OFFICERS—Governor, $4,500; Secretary of State, $2,000; Treasurer, $2,500; Comptroller, $2,500; Attorney General, $3,000; Chief Justice, $3,500; 7 Associate Justices, $3,500; District Judge, $4,000; Senators and Representatives, $5 per day and mileage; 2 Collectors Internal Revenue, $2,025 to $4,500; Collectors of Customs, $7,000; 2 Collectors, $250 to $1,200 and fees; Auditor, $2,500; Naval Officer, $5,000; Surveyor, $4,500.

VIRGINIA (Old Dominion)—First settlers, English, Jamestown, 1607. Ranks first in peanuts; second in tobacco; eighth in salt and iron ore, fourteenth in population; sixteenth in wealth; eighteenth in miles of railway; thirty-first in square miles. Industries: Agriculture is the leading industry: tobacco, wheat, corn and potatoes being the great staples. The mineral resources are vast; the mountains containing rich deposits of coal and iron, valuable marbles, slate and stone quarries, with important salt springs. The leading manufactures are prepared tobacco and flour. The unlimited water power with rich mineral deposits must sooner or later make Virginia a great manufacturing State.

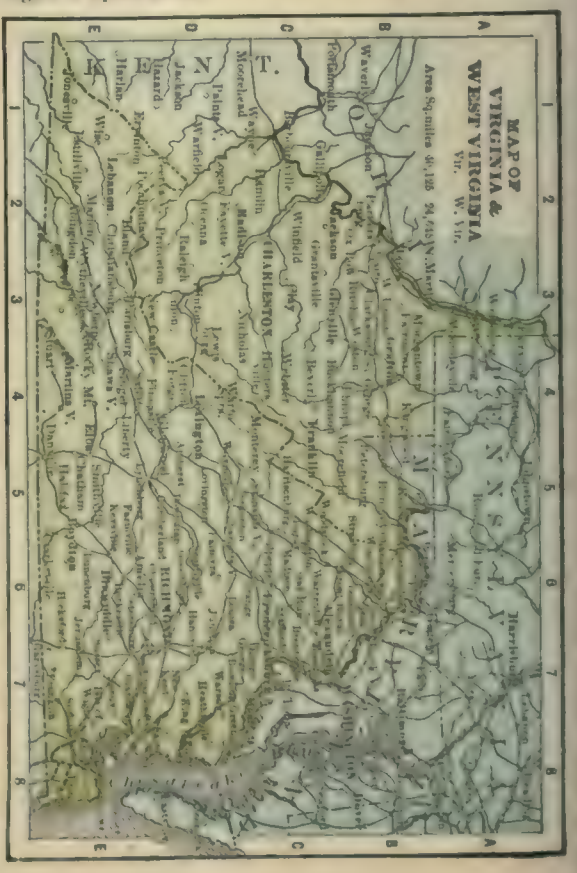
SALARIES OF STATE OFFICERS—Governor, $5,000; Lieutenant Governor, $900; Secretary of State, $2,000; Treasurer, $2,000; Auditor, $3,000; Sec. Auditor, 2,000; Attorney General, $2,500; Superintendent Public Instruction, $2,500; Adjutant General, $600; Commissioner of Agriculture, $1,500; Superintendent of Land Office, $1,300; President Supreme Court, $3,250; 4 Judges Supreme Court, $3,000; 2 District Judges, $3,500; Senators and Representatives, $540 per year; 5 Collectors Internal Revenue, $3,000 to $4,500.

WEST VIRGINIA (Pan Handle State)—First settlers English, Wheeling, 1774. Admitted to Union, 1863. Ranks fifth in salt and coal; eighth in buckwheat, iron and steel; twenty-ninth in population; thirty-fourth in miles of railway; thirty-eighth in square miles.



INDUSTRIES—Agriculture is the leading industry, the principal staples being tobacco, wheat and corn. The mountain pastures are well adapted to stock raising. Its mineral resources are rich deposits of coal, iron and numerous oil wells and salt springs.

SALARIES OF STATE OFFICERS—Governor, $2,700; Secretary of State, $1,000 and fees; Treasurer, $1,400; Auditor, $2,000 and fees; Superintendent of Free Schools, $1,500; Atty. Gen., $1,300; Presiding Judge Supreme Court, $2,250; Associate Judges, $2,250; Senators and Representatives, $4 per day, mileage 10 cents; District Judge, $3,500; 2 Collectors Inter. Rev., $2,875.



NORTH CAROLINA (Old North State)—First settlers, English, Cowan river, 1650. Ranks first in tar and turpentine; second in copper; third in peanuts and tobacco; fourth in rice; ninth in cotton; fifteenth in population; twentieth in miles of railway; twenty-third in wealth; twenty-sixth in square miles.

INDUSTRIES—Agriculture is the leading industry, the chief articles being corn, wheat, tobacco, sweet potatoes, oats, rice and cotton. Vast forests furnish three times as much pitch, tar and resin as all the other States together. Valuable gold mines are extensive; wrought iron, copper and coal also abound.

SALARIES OF STATE OFFICERS—Governor, $3,000; Secretary of State, $2,000; Treasurer, $3,000; Auditor, $1,500; Attorney General, $2,000; Superintendent Public Instruction, $1,500; Adjutant Gen., $600; Commissioner of Agriculture, $1,200; State Librarian, $750; Chief Justice, $2,500; 2 Associate Justices, $2,500; Senators and Representatives, $4 per day, mileage 10 cents; 4 Collectors Internal Revenue, $2,500 to $3,750; 64 Deputy Collectors, $300 to $1,700.



SOUTH CAROLINA (Palmetto State)—First settlers, English, Ashley river, 1670; Ranks first in phosphates and rice; fifth in cotton; twentieth in population; twenty-eighth in miles of railway; thirtieth in wealth; thirty-seventh in square miles.

INDUSTRIES—Agriculture is the principal industry, the State producing a larger amount of rice than any other State. "Sea Island Cotton" is of the finest quality, and superior to all other, and is raised on several islands along the coast of this State and Georgia. Corn, oats, wheat, sweet potatoes and tobacco are extensively raised. The export of rice and cotton is large. But few manufactures are as yet established in the State, though considerable attention is being given to them.

SALARIES OF STATE OFFICERS—Governor, $3,500; Lieut. Governor, $1,000; Secretary of State, $2,100; Treasurer, $2,100; Comptroller General, $2,100; Attorney General, $2,100; Superintendent Public Instruction, $2,100; Commissioner of Agriculture, $2,100; Adjutant and Inspector General, $1,500; Chief Justice, $4,000; Associate Justices, $3,500; Clerk of Supreme Court, $1,000; Senators and Representatives, $5 per day, mileage 10 cents; District Judge, $3,500; Collector of Internal Revenue, $3,250.

GEORGIA (Empire State of South)—First settlement, by the English, Savannah, 1733. Ranks second in rice and sweet potatoes; third in cotton and molasses; fourth in sugar; seventh in mules; tenth in hogs, thirteenth in population; fifteenth in miles of railway; nineteenth in square miles; twenty-fifth in wealth.

INDUSTRIES—The leading industry is agriculture, the products being corn, rice, cotton and sweet potatoes, and manufacturing, in which it leads all other Southern States, having fine facilities. Gold, iron, marble and slate abound.

SALARIES OF STATE OFFICERS—Governor, $3,000; Secretary of State, $2,000; Treasurer, $2,000; Comptroller General, $2,000; Attorney General, $2,000; Commissioner of Agriculture, $2,500; Chief Justice, $2,500; Associate Justices, $2,500; Senators and Representatives, $4 per day and mileage; 3 District Judges, $3,500; Div. Supt. Railway Service, $2,500; Collectors Internal Revenue, $2,500 to $3,125; 24 Deputy Collectors, $300 to $1,700; Customs Surveyor, $1,000 and fees.

FLORIDA (Peninsula State)—First settlement, by the Spaniards, at St. Augustine, 1565. Admitted to the Union, 1845. Ranks third in sugar and molasses; sixth in rice; tenth in cotton; twenty-first in square miles; twenty-seventh in miles of railway; thirty-fourth in population; thirty-sixth in wealth.



INDUSTRIES—The inhabitants confine themselves to agriculture. The chief products are cotton, sugar cane, rice, corn and sweet potatoes, and tropical fruits of great variety. There is considerable trade also in lumber.

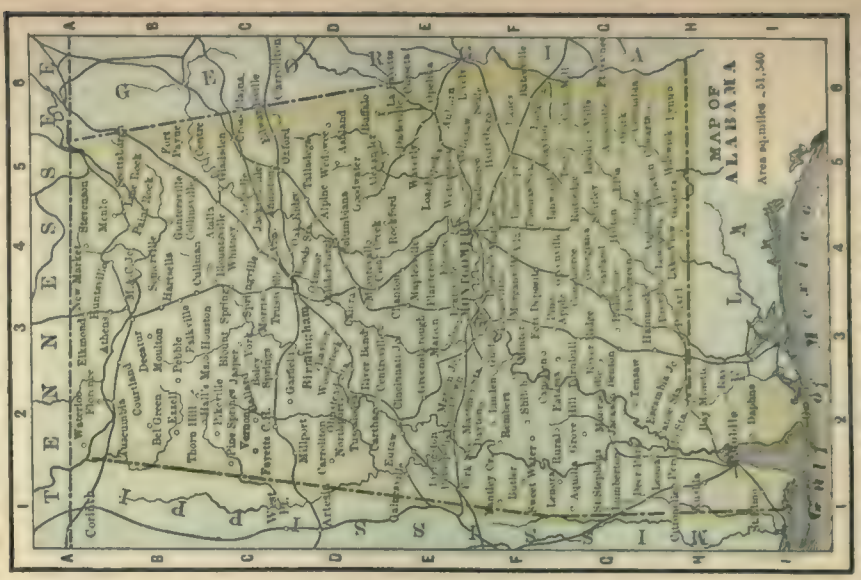
SALARIES OF STATE OFFICERS—Gov'nor, $3,500; Lieutenant Governor, $500; Secretary of State, $1,500; Treasurer, $2,000; Comptroller, $2,000; Attorney General, $1,500; Superintendent Pub. Instruction, $1,500; Adjutant General, $1,500; Land Commissioner, $1,200; Chief Justice, $3,500; 2 Asso. Just's $3,000; Senators and Representatives, $6 per day and 10 cents mileage; 2 District Judges, $3,500; Collector Internal Revenue, $3,000; Surveyor Gen'ral, $1,800; Chief C'k., $1,600.



ALABAMA—First settlement, by the French, at Mobile, 1711. Admitted to the Union, 1819. Ranks fourth in cotton, fifth in mules and asses, sixth in sugar, seventh in rice and iron ore, tenth in bituminous coal, seventeenth in population, nineteenth in miles of railway, twenty-sixth in square miles and twenty-eighth in wealth.

INDUSTRIES—The commerce of the State is considerable, its manufacturing interests are increasing rapidly, chiefly cotton and cotton goods, yarn, thread, iron, leather and lumber. Its mining interests are very considerable; but the principal industry is agriculture, cotton and corn being the leading productions; other grains, sugar cane, rice and tobacco are also produced.

SALARIES OF STATE OFFICERS—Governor, $3,000; Sec. State, $1,800; Treasurer, $2,100; Auditor, $1,800; Attor'y Gen., $1,500; Supt. Pub. Ins. $2,250; Librarian, $1,500; 3 R. R. Com'rs, $2,000 to $3,500; Chief Justice, $3,000; 2 Ass'o. Justices, $3,000; Senators and Representatives, $4 per day and 20 cents mileage; 3 Dist. Judges, $3,000; 2 Collectors Inter. Revenue, $2,500; 10 Collectors Internal Revenue, $1,000 to $1,500.



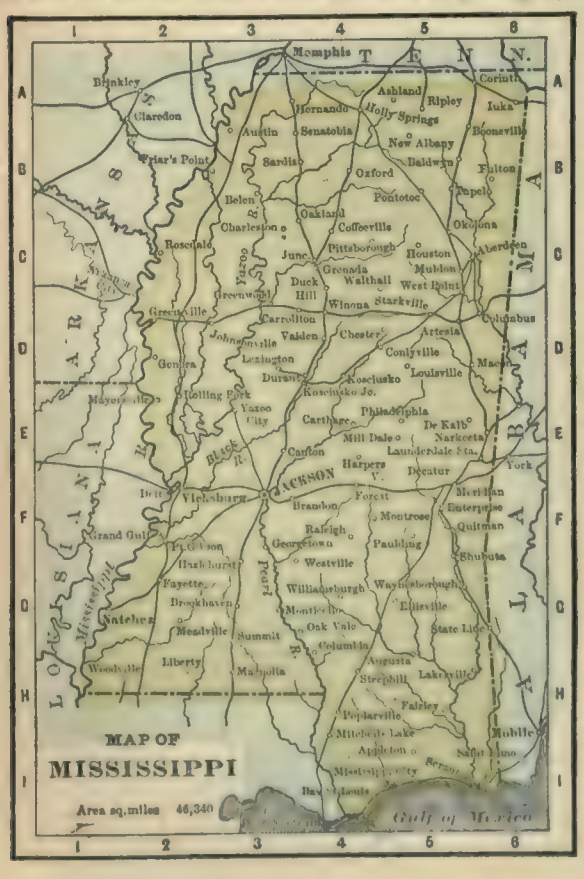
MISSISSIPPI (Bayou State)—First settlement, by the French, at Natchez, 1716. Admitted to the Union, 1817. Ranks second in cotton, fifth in rice, sixth in mules and molasses, seventh in sugar, eighteenth in population, twenty-fourth in miles of railway and twenty-ninth in square miles and wealth.

INDUSTRIES—Mississippi is almost exclusively an agricultural State. Great quantities of rice, corn and sugar and sweet potatoes are produced. Many tropical fruits grow in abundance. The labor is largely performed by colored persons. Horses, mules, swine and cattle are extensively raised.

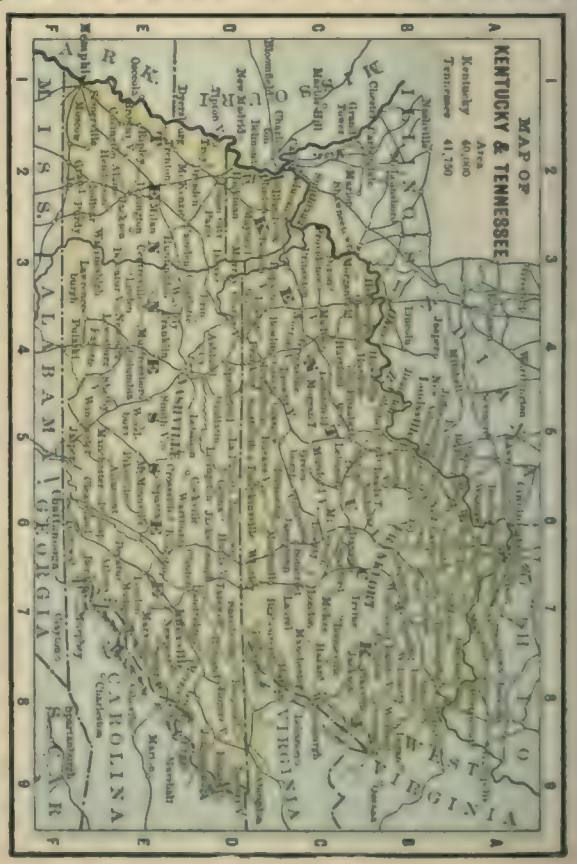
SALARIES OF STATE OFFICERS—Governor, $4,000; Lt. Governor, $500; Sec'y State, $2,500; Treasurer, $2,500; Auditor, $2,500; Attorney General, $2,500; Supt. Pub. Education, $2,000; Commissioner Agriculture, $1,000; Land Commissioner, $1,000; Adjutant General, $500; Librarian, $800; Chief Justice, $3,500; 2 Associate Justices, $3,500; Senators and Representatives, $400 a year; 2 District Judges, $3,500; Collector Internal Revenue, $2,750.

KENTUCKY (Corn Cracker State)—First settled by English, Boonesboro, 1775. Admitted to Union, 1792. Ranks first in tobacco, fourth in malt and distilled liquors, sixth in hogs, seventh in corn, eighth in rye, coal, mules and population, fifteenth in wealth, twenty-third in miles of railway and thirty-fourth in square miles. Industries: Agriculture is the main pursuit. Wheat, corn, hemp, flax and tobacco are the staple productions. Fruits of an excellent quality abound. Horses and cattle are reared in great numbers. Thousands of swine fatten in the woods. Mining is carried on to a large extent. Manufactures and commerce receive much attention. Kentucky produces nearly one-half the tobacco raised in the United States. Salaries of State officers: Governor, $5,000; Secretary of State, $1,700; Treasurer, $3,800; Auditor, $2,500; Attorney General, $700 and fees; Register of Land Office, $2,400; Commissioner of Agriculture, $2,000; Insurance Commissioner, $4,000; 3 Railroad Commissioners, $2,000; Chief Justice, $5,000; 3 Associate Justices, $5,000; Senators and Representatives, $5 per day and 15 cents mileage; District Judge, $3,500; Pension Agent, $4,000; 6 Collectors Internal Revenue, $4,500; 60 Deputy Collectors, $300 to $2,000.

TENNESSEE (Big Bend State)—First settlers, English, Fort London, 1757. Admitted to Union, 1796. Ranks second in peanuts, third in mules, sixth in tobacco, seventh in copper and hogs, ninth in corn, twelfth in population, eighteenth in wealth, twenty-first in miles of railway and thirty-second in square miles. Industries: Agriculture is the most important industry, the great staples being wheat, cotton, corn, hemp and tobacco. In the production of tobacco the State ranks third. The iron and coal interests are growing rapidly, and will in time prove one of its richest resources. The marbles of the State are esteemed for their color and variety. Immense numbers of swine and mules are raised in the State. The manufacturing industries are more developed than in any of the Southern central States. A large internal commerce is carried on through the railroads and rivers of the State.

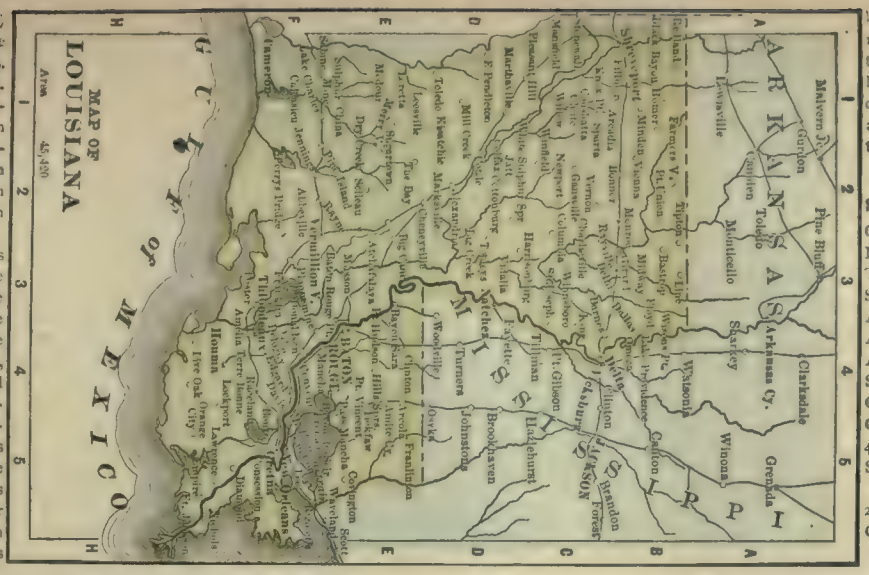


SALARIES OF STATE OFFICERS—Governor, $4,000; Secretary State, $1,800 and fees; Treasurer, $2,700; Comptroller, $2,700; Att'y Gen'l, $3,000; Superintendent Public Instructi'n, $2,000; Adjutant Gen'l, $1,200; Commiss'er Agriculture, $2,500; 3 Railroad Commissioners, $2,000; Librarian, $1,000; Chief Justice, $4,000; Senators and Representatives, $4 per day and 16 cents a mile; 3 District Judges, $3,500; Pension Agent, $4,000; 3 Collectors Internal Revenue, $2,250 to $4,375.



LOUISIANA (Creole State)—First settlement, by the French, at Iberville, 1699. Admitted to the Union, 1812. Ranks first in sugar and molasses; third in rice; ninth in salt; twenty-second in population; twenty-seventh in wealth; twenty-eighth in square miles; twenty-ninth in miles of railway.

INDUSTRIES—Holding, as it does, the outlet to the Mississippi Valley, the State is able to control both the foreign and domestic trade of this large and rich section, hence commerce is large and important. The manufacturing interests are comparatively small, except in sugars and molasses. Agriculture is the chief pursuit. This State is the only part of our country producing sugar in large quantities. Cotton is largely cultivated, Louisiana ranking fourth in its production. The rice crop is also large. Indian corn and other cereals are also produced to a considerable extent. The tropical fruits are abundant.



Salaries of State Officers.

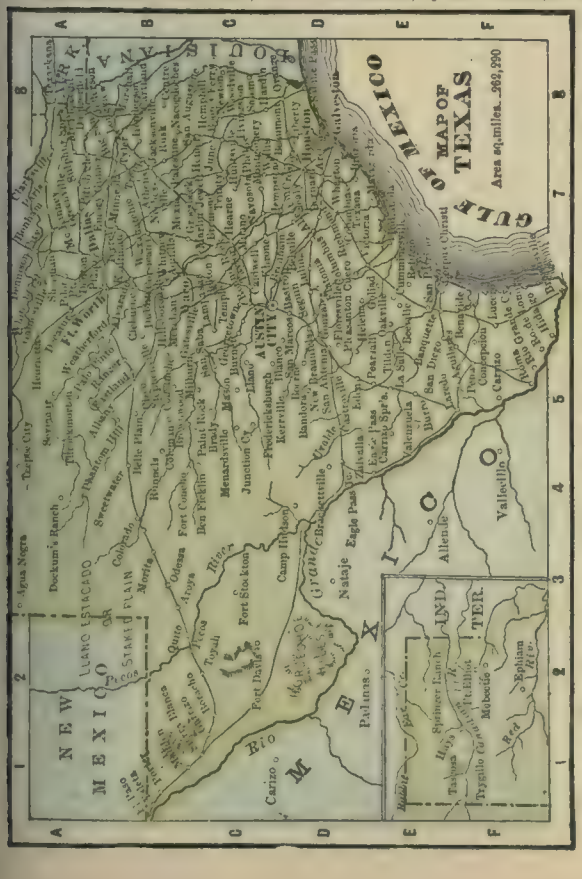
Governor	$4,000
Lieut. Governor	$8 per day
Treasurer	$2,000
Sec'y of State	1,800
Auditor	2,500
Attorney General	3,000
Adjutant General	2,000
Supt. Pub. Ins.	2,000
Com. Ag. and Immig.	2,000
Chief Justice	5,000
4 Associate Justices	5,000
Senators and Representatives, $4 per day & mil'ge	
2 Dist. Judges, $3,500 to $4,500	
Col. of Customs New Orleans	7,000

TEXAS (Lone Star State)—First settlement, by the Spaniards, at San Antonio, 1692. Admitted to the Union, 1845. Ranks first in cattle and cotton and square miles; second in sugar, sheep, mules and horses; sixth in miles of railway; seventh in milch cows; eighth in rice and hogs; eleventh in population; nineteenth in wealth. Industries: Stock raising is the leading industry, Texas ranking first in this production. Agriculture extensively engages the attention of its inhabitants; corn, wheat and the other cereals are raised in the northern part; sweet potatoes, sugar cane, tobacco and tropical fruits in the southern part. Its commerce consists of exports of cotton, hides and live stock. The State has vast resources that have not, as yet, been fully developed; an abundance of most valuable timber, large deposits of coal, iron and salt, and other useful minerals.

Salaries of State Officers.

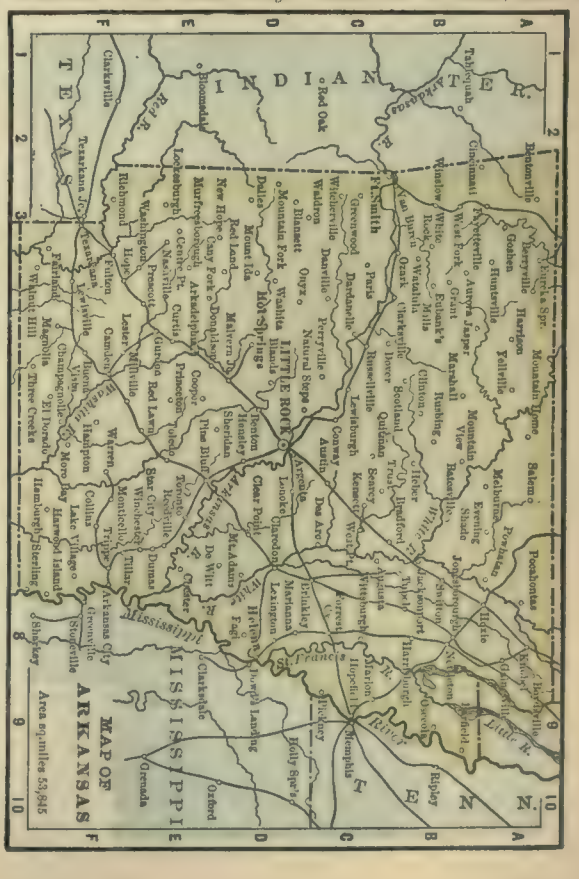
Governor	$4,000	Railroad Commissioner	$3,000
Lieutenant Governor	$5 per day	Chief Justice	3,500
Secretary of State	2,000	2 Associate Justices	3,500
Treasurer	2,500	Senators and Representatives	$5 per day and mileage
Attorney General	4,000	3 District Judges	3,500
Adjutant General	2,000	Collectors Internal Revenue	$2,500 to 2,750
Land Commissioner	2,500	17 Deputy Collectors	$300 to 1,850

ARKANSAS (Bear State)—First settlement, by the French, at Arkansas Post, 1685. Admitted to the Union in 1836. Ranks fifth in cotton, ninth in mules, twenty-second in miles of railway, twenty-fifth in population and in square miles, thirty-first in wealth.



INDUSTRIES—The mineral resources of the State are very large, and receiving much attention. Stock raising is extensive. Agriculture is the chief industry; corn, cotton and wheat being the leading productions. Oats, tobacco, sweet potatoes and fine fruits are also produced to a considerable extent.

SALARIES OF STATE OFFICERS—Gover'or $3,000 Sec. State, $1,800; Treasurer, $2,250; Auditor, $2,250; Att'y Gen. $1,500; Sup. Public Inst., $1,600; La'd Com., $1,800; Chief Jus., $3,000; 2 Associate Justices, $3,000; Senat'rs and Representatives, $6 a day; 2 District Judges, $3,500; District Attorney, $200 and fees; 2 Asst. District Attorneys, $1,200, $1,000; Collector Internal Rev'nue, $2,750; 10 Deputy Collectors, $1,200 to $1,500.



OHIO (Buckeye State) — First settled, by the English, at Marietta, 1788. Admitted to Union, 1803. Ranks first in agricultural implements and wool, second in petroleum, iron and steel, third in population, wheat, sheep, coal, malt and distilled liquors, fourth in printing and publishing, salt, soap and wealth, fifth in milch cows, hogs, horses, hay, tobacco, iron ore and miles of railway, thirty-third in square miles.

INDUSTRIES—The agricultural interest is very large. Great crops of wheat, corn, oats, barley, hay, potatoes, garden and orchard products are raised; also flax, tobacco and grapes. Coal and iron mining are extensively carried on in the eastern and southern parts, and large numbers of live stock are sent to the Eastern markets. It is the foremost State in sheep raising, the wool production being more than 20,000,000 pounds a year. In manufacturing it ranks as the fourth State in the Union.



Its commerce by lake, river, canal and railroad transportation is very large. In wealth, population and progressiveness the State takes front rank, being the third in population.

Salaries of State Officers.

Governor	$4,000
Secretary of State	3,000
Treasurer	3,000
Auditor	3,000
Attorney General	3,000
School Commissioner	2,000
Supt. Ins. Department	1,800
Railroad Com	2,000
Secretary Board Agr.	1,800
Com. Labor Statistics	2,000
Judge Supreme Court	4,000
Senators and Repre's,	$600 a year and 12c. a mile
2 District Judges,	$3,500 4,000
Pension Agent	4,000
8 Col. In. Rev.	$2,500 to 4,500

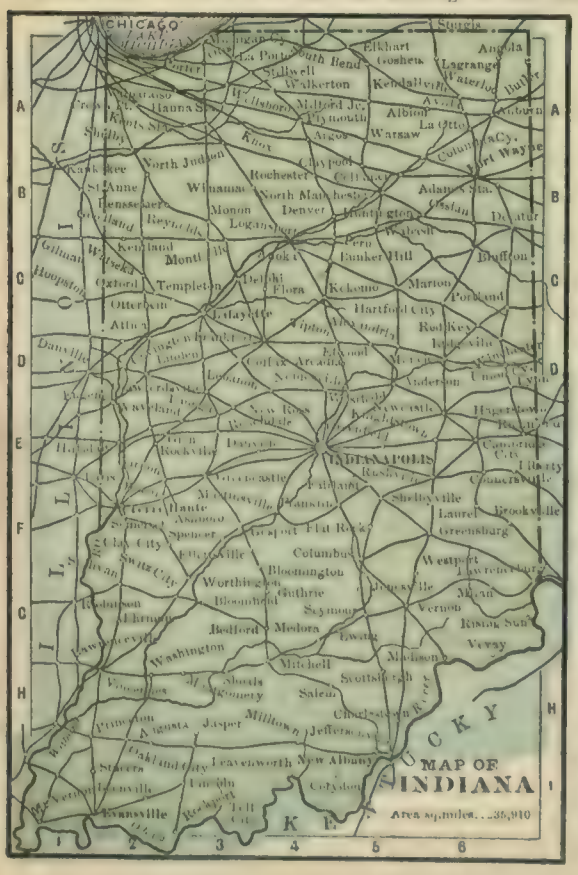
INDIANA (Hoosier State) First settlement, by the French, Vincennes, 1730. Admitted to the Union, 1816. Ranks second in wheat, fourth in corn, hogs and agricultural implements, sixth in coal and population, seventh in horses, oxen and other cattle, malt and distilled liquors and wealth, eighth in miles of railway, ninth in hay and milch cows, thirty-fifth in square miles. Industries: The inhabitants are largely engaged in agriculture; large quantities of corn, wheat, oats, pork and beef being exported. Its mining and manufacturing are considerable, and constantly increasing.

Salaries of State Officers.

Governor	$5,000	Attorney General	$2,500	Senators and Repres'tatives,	$6 a day, 20c. a mile
Lieut. Governor	1,000	Superintendent Public Instruction	2,500	District Judge	$3,000
Secretary of State	2,000	Sec'y Board of Agriculture	1,200	Pension Agent	4,000
Treasurer	3,000	Librarian	1,200	6 Collectors Internal Revenue	$2,375 to 4,000
Auditor	1,500	5 Judges	4,000	Surveyor of Customs	$1,000 and fees

ILLINOIS (Prairie or Sucker State)—First settled, by the French, Kaskaskia, 1682. Admitted to the Union, 1818. Ranks first in corn, wheat, oats, meat packing, lumber traffic, malt and distilled liquors and miles of railroad; second in rye, coal, agricultural implements, soap and hogs; third in wealth, fourth in population, manufactories, hay, potatoes, iron and steel, mules, milch cows and other cattle; twenty-second in square miles.

INDUSTRIES—Illinois is in the front rank as an agricultural State, surpassing all others in the production of wheat and corn, and second to none in the extent of stock raising. It ranks the fourth in population, and next to Missouri in manufacturing, and the sixth in the Union. Its fruit and orchard products are very large. The State abounds in mineral productions, coal, lead and salt being the chief. Its great rivers and lakes present natural facilities for an extensive commerce. The railroads of the State are greater in the number of miles within the State than any other.





SALARIES OF STATE OFFICERS—Governor, $6,000; Sec. State, $3,500; Treasurer, $3,800; Auditor, $3,500; Att'y Gen., $3,500; Chief Jus., $3,000; Sen'tors and Representatives, $5 a day, mileage 10c. and $50; 2 District Judges, $3,500 to $4,000; Pension Agent, $4,000; 8 Collectors Internal Revenue, $2,125 to $4,500; Collector of Customs, $7,000; Auditor, $2,200; Appraiser, $3,000; Examiner, $2,000.

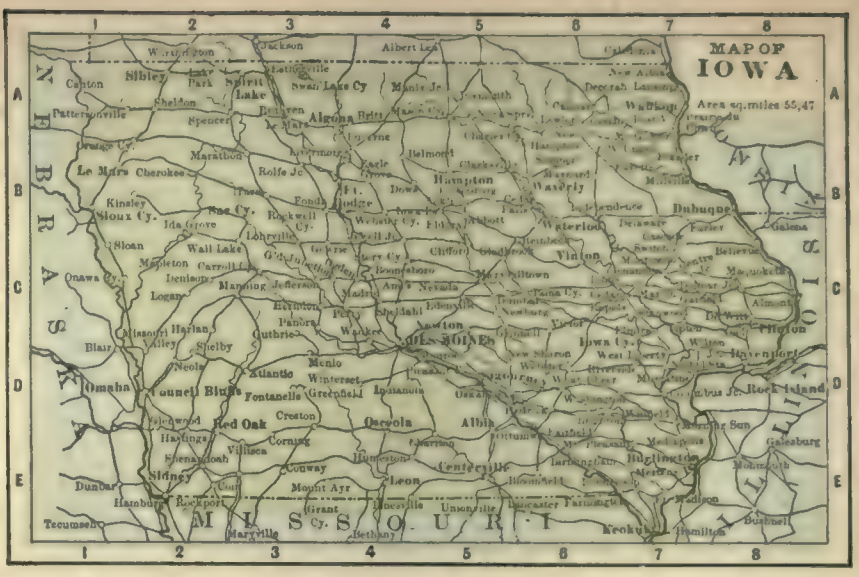
MICHIGAN (Wolverine State)—First settled, by the French, at Detroit, 1650. Admitted to the Union, 1837. Ranks first in copper, lumber and salt, second in iron ore, third in buckwheat and wool, fifth in hops and potatoes, sixth in wheat, barley and wealth, seventh in agricultural implements, ninth in oats, population and miles of railway and twentieth in square miles.

INDUSTRIES—Agriculture, mining, lumbering, manufacturing and commerce command the attention of the inhabitants. Large crops of wheat, corn, oats and potatoes are produced, as also great quantities of wool, butter and cheese. Fruit raising is extensively followed, the value of the orchard products exceeds that of New Jersey or California. The copper mines of the State are the richest known and are extensively worked.


MAP OF MICHIGAN
Area sq.miles 57,430
LAKE SUPERIOR
LAKE HURON
LAKE MICHIGAN
LAKE ERIE
LOWER PENINSULA
UPPER PENINSULA
Detroit
Grand Rapids
Saginaw
Bay City
Port Huron
Ann Arbor
Jackson
Kalamazoo
Battle Creek
Lansing
Flint
Pontiac
Monroe
Adrian
Hillsdale
Coldwater
Niles
Benton Harbor
St Joseph
Muskegon
Traverse City
Petoskey
Mackinac
Sault Ste Marie
Escanaba
Marquette
Ironwood
Houghton
Calumet
Copper Harbor
Menominee
Iron Mountain
Negaunee
Ishpeming
Manistique
Newberry
Grand Haven
Holland
Saugatuck
Ludington
Manistee
Cadillac
Alpena
Bay City
Port Huron
Toledo
Chicago
Milwaukee
Green Bay
Duluth
Superior
Ashland
Hancock
Houghton
Calumet
Copper Harbor
Marquette
Escanaba
Menominee
Iron Mountain
Negaunee
Ishpeming
Manistique
Newberry
Sault Ste Marie
Mackinac
Petoskey
Traverse City
Cadillac
Manistee
Ludington
Muskegon
Grand Haven
Holland
Saugatuck
Benton Harbor
St Joseph
Niles
Coldwater
Hillsdale
Adrian
Monroe
Pontiac
Flint
Saginaw
Bay City
Port Huron
Ann Arbor
Jackson
Kalamazoo
Battle Creek
Lansing
Grand Rapids
Detroit

IOWA (Hawkeye State)—First settlement, by the French Canadians, Burlington, 1788. Admitted to the Union, 1846. Ranks first in hogs, second in miles of railway, milch cows, oxen and other cattle, corn, hay and oats; third in horses, fifth in barley, sixth in potatoes and rye, seventh in coal and wheat, tenth in population, eleventh in wealth, twenty-fourth in square miles.

INDUSTRIES.—Agriculture and mining are the leading pursuits. The State takes a leading position in the production of wheat, corn and cattle. The manufactures are important, and show great progress annually.



Salaries of State Officers.

Governor	$3,000
Lieut. Governor	1,200
Sec'y of State	2,200
Treasurer	2,500
Auditor	2,200
Attorney General	1,500
[and $5 a day	
Superintendent Public Instruction	$2,200
3 Railroad Com'rs	3,000
Librarian	1,500
Chief Justice	3,000
4 Associate Justices	3,000
Senators and Representatives	$550 per year
2 District Judges	$3,500
Pension Agent	4,000
4 Collectors Internal Revenue	$2,500 to 4,500

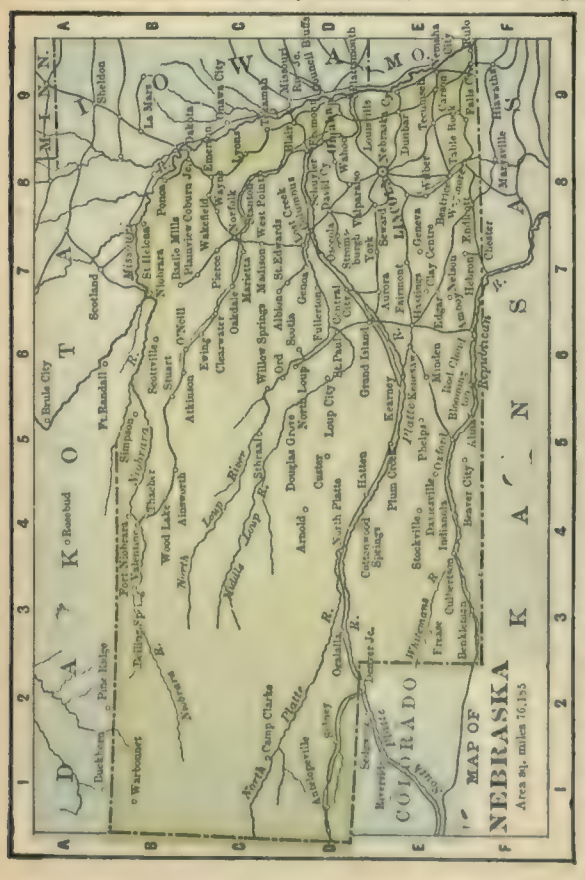
NEBRASKA—First settlement, by Americans. Admitted to the Union in 1867. Ranks eighth in corn and barley, ninth in rye, fourteenth in miles of railway, fifteenth in square miles, thirtieth in population, thirty-second in wealth.

INDUSTRIES—Beef cattle and other live stock are raised in great numbers upon the grazing section. Corn, wheat and other cereals and fruit growing are carried on extensively and with great success. The cheap and fertile lands offer great inducements for settlement to emigrants.

Salaries of State Officers.

Governor	$2,500
Lieut. Governor	$10 a day
Secretary of State	$2,000
Treasurer	2,500
Auditor Public Accounts	2,500
Attorney General	2,000
Superintendent Public Instruction	2,000
Secretary Board of Agriculture	1,000
Commissioner of Public Lands	$2,000
Chief Justice	2,500
Senators and Representatives	$3 a day and 10 cents mileage
District Judge	$3,500
Collector Internal Revenue	4,500
Surveyor General	2,000
3 Indian Agents	$1,200 to 1,600

THE DAKOTAS—Settlement, by Americans, at Pembina. Organized as a Territory, 1861. Admitted into the Union as two States, North and South Dakota, 1889. Ranks third in gold and square miles, ninth in silver, thirteenth in miles of railway, thirty-ninth in population. Special census of Dakota in 1885, showed a population of 415,610. In 1890 the population of N. Dakota was 182,719; and the population of S. Dakota was 328,808. The total assessment of property in 1886 was $106,499,549, and in 1887, $157,084,365.





SALARIES OF STATE OFFICERS.—*North Dakota*—Governor, $3,000; Lieut. Governor, $1,000; Secretary of State, $2,000; Auditor, $2,000; Treasurer, $2,000; Com. Ins., $2,000; Att'y General, $2,000; Supt. Pub. Instruc'n, $2,000; Sec. R. R. Coms., $2,000; Chief Justice, $4,500; Asso. Justice, $4,500.

South Dakota—Governor, $2,500; Lieut. Gov., $800; Secret'y of State, $1,800; Auditor, $1,800; Treasurer, $1,800; Supt. Pub. Instruc'n, $1,800; Supt. Pub. Land, $1,800; Attorney-General, $1,800; Com. Labor, $1,000; Pub. Examiner, $1,500.

MISSOURI (Pennsylvania of the West)—First settlement, by the French, at Ste. Genevieve, 1764. Admitted to the Union, 1821. Ranks first in mules, third in oxen, hogs, corn and copper; fifth in population, sixth in iron ore, wool, milch cows and horses; seventh in oats, eighth in wealth, wheat and tobacco, ninth in sheep and potatoes, tenth in miles of railway, sixteenth in square miles.

INDUSTRIES.—Agriculture is the leading occupation. Mining is extensively carried on in the section south of St. Louis. The iron resources of the State exceed that of any other. The manufacturing interests are large and increasing. The chief agricultural products are great crops of corn, wheat, rye, tobacco, hemp and grapes.



Salaries of State Officers.

Governor	$5,000
Sec'y of State	3,000
Treasurer	3,000
Auditor	3,000
Attorney Gen	3,000
Adjutant Gen	2,000
Supt. Public Schools	3,000
Register of Lands	3,000
3 Railroad Com'rs	3,000
Supt. Ins. Dep't	4,000
Chief Justice	4,500
Senators and Repre's, $5 a day, mileage and $30	
2 District Judges	$3,500
5 Col. In. Rev.	$2,250 to 4,500
Surveyor of Customs, St. Louis	5,000

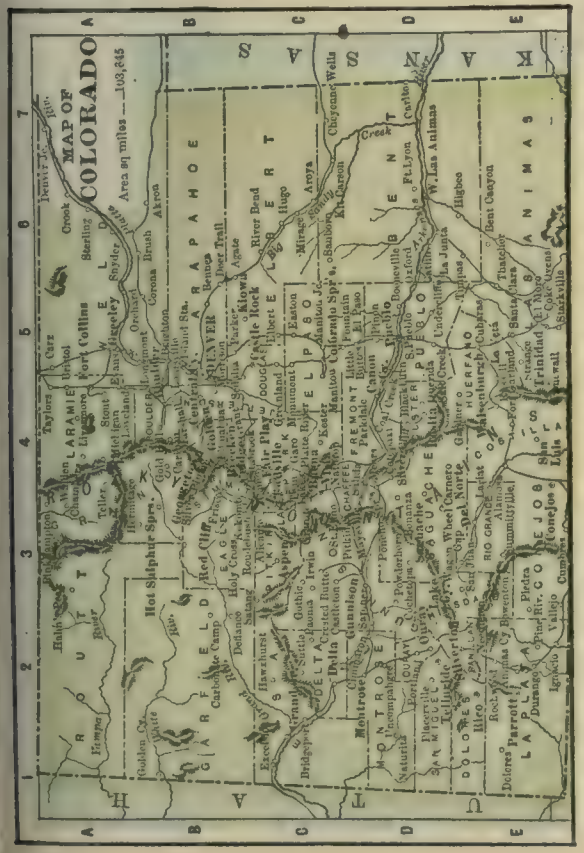
KANSAS (Garden of the West)—Settled by Americans. Admitted to the Union, 1861. Ranks fifth in cattle, corn and rye, seventh in hay and miles of railway, ninth in hogs, horses, wheat and coal, fourteenth in square miles, twenty-first in population, twenty-fourth in wealth.

INDUSTRIES—Agriculture and stock raising form the chief pursuits of the inhabitants. Every variety of cereal and farm products is raised in great quantities. Nearly 2,000,000 acres are mineral lands. Three-fourths of the State is suited for agriculture.

Salaries of State Officers.

Governor	$3,000	3 Railroad Commissioners	$3,000
Secretary of State	2,000	State Librarian	1,500
Treasurer	2,500	Chief Justice	3,000
Auditor	2,000	2 Associate Justices	3,000
Attorney General	2,500	Senators and Representatives	$3 per day and 15 cents mileage
Superintendent Public Instruction	2,000	District Judge	$3,500
Secretary Board of Agriculture	2,000	Pension Agent	4,000
Insurance Commissioner	2,500	Collector Internal Revenue	2,750

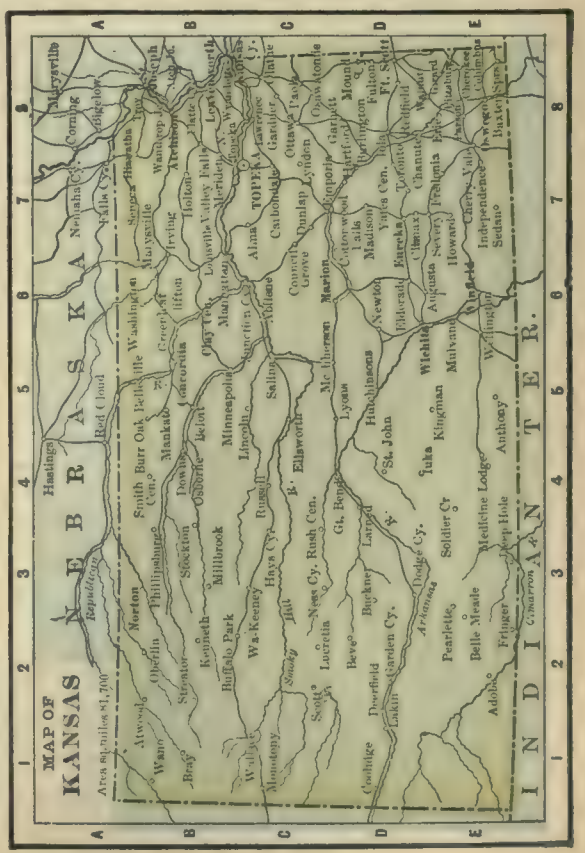
COLORADO (Centennial State)—First settlement, by Americans, near Denver, about 1850. Organized as a Territory, 1861. Admitted to the Union, 1876.



Ranks first in silver, fourth in gold, eighth in square miles, seventeenth in miles of railway, thirty-fifth in population and wealth.

INDUSTRIES—About one-third of the State is good agricultural land and easy of irrigation, bringing fourth bountiful harvests of all the cereals. As a grazing and dairy country it is unsurpassed, its nutritious grasses having peculiar advantages for herding. Its chief production is mining; in its yield of gold and silver it is the leading State of the Union.

SALARIES OF STATE OFFICERS Govern'or, $5,000; Lieut. Governor, $1,000; Secretary of State, $3,000; Treasurer, $3,000; Auditor, $2,500; Attorn'y Gen'ral, $2,000; Chief Justice, $5,000; 2 Associate Justices, $5,000; Senators and Representatives, $4 per day, 15 cents mileage; Dist. Judge, $3,500; Collector Inter'l Rev., $2,875; Sur. Gen., $2,500; Ute Indian Agt., $1,400.



NEVADA (Sage Hen State)—First settlement, by Americans, in 1850. Admitted to the Union, 1864. Ranks second in gold, fourth in silver, seventh in square miles, thirty-seventh in wealth, thirty-eighth in population, fortieth in miles of railway.

INDUSTRIES—The leading industry is mining. The mines of the State yield over three-fifths of all the silver produced in the United States. Stock raising is also largely followed, having a large amount of fine pasture land.



Salaries of State Officers.

Governor	$5,000
Lieut. Governor	2,500
Sec'y of State	3,000
Treasurer	3,000
Comptroller	3,000
Attorney General	3,000
Superintendent Public Instruction	2,000
Chief Justice	6,000
2 Associate Justices	6,000
Senators and Representatives, $8 a day, 40c. mileage	
District Judge	2,500
Surveyor Gen.	3,000
Chief Clerk	2,000
Draftsman	1,500
Collector Inte'nal Revenue	2,375

CALIFORNIA (Golden State)—First settlement, by the Spaniards, 1769, at San Diego. Admitted to the Union, 1850. Ranks first in barley, grape culture, gold and quicksilver, second in wool and square miles, third in hops, fifth in wheat and salt, seventh in silk goods, eighth in soap and silver, ninth in wealth, sixteenth in miles of railway, twenty-fourth in population. Industries: Mining, manufacturing, stock raising and agriculture form the principal industries of the State. Commerce is extensive with China, Japan, the East Indies and Australia, and with other States and Territories. The State ranks first in the culture of the grape, and one of the foremost in wheat raising. No State in the Union has developed so rapidly.

Salaries of State Officers.

Governor	$6,000	District Judge	$5,000
Secretary of State	3,600	Senators and Representatives	$8 a day, 10 cents mileage and $25
Treasurer	3,000	2 Collectors Internal Revenue	$3,125 to $4,500
Comptroller	3,000	Collector Customs, San Francisco	7,500
Superintendent Public Instruction	3,000	Pension Agent	4,000
Attorney General	3,000	Superintendent of Mint	4,500
Surveyor General	3,000	Assayer	3,000
State Librarian	3,000		

OREGON—First settled, by Americans, 1811. Territory organized, 1848. Became a State in 1859. Ranks seventh in fisheries, tenth in square miles fifteen'th in wheat, thirty-second in miles of railway, thirty-fourth in wealth, thirty-six in population.

INDUSTRIES—Agriculture, stock raising and lumbering are the chief pursuits; wheat being the staple article of the former, while most of the cereals of the Middle States flourish. Cutting timber from the immense pine forests of the State gives employm'nt to great numbers of inhabitants.

SALARIES OF STATE OFFICERS—Gov'nor, $1,500; Secret'y of State, Auditor & Comptroller, $1,500; Treasurer, $1,500; Superintendent of Public Instruct'n, $1,500; State Librarian, $1,000; C'f Justice, $2,000; 2 Associa. Justices, $2,000; Senators and Representatives, $3 a day and 15 cents mileage; District Judge, $3,500; District Attorney, $2,000 and fees; Collector Int. Revenue, $2,500; Collector Customs, Astoria, $3,000; Appraiser, $3,000; Surveyor General, $2,500.





MONTANA

Ranks fourth in silver and square miles, fifth in gold, fifteenth in cattle, thirty-sixth in miles of railway and forty-fourth in population. The population of Montana, according to census of 1880, was 39,159, but in 1884 the total vote cast for delegate to Congress was 26,969, and in 1886, 32,262. In 1890 the population numbered 132,159. First settlement, by Americans, 1852. Organized as a Territory, 1864. Admitted to the Union in 1889.



Salaries of State Officers.

Governor	$5,000
Secretary	3,000
Treasurer	3,000
Auditor	3,000
Supt. Public Inst'n	2,500
Chief Justice	4,000
2 Asso. Justices	4,000
Senators and Repre'es [$4 per day, 20c. mileage	
Surveyor Gen	$2,500
Chief Clerk	1,800
Chief Draftsman	1,600
Collector Int. Rev.	2,500
5 Deputy Collectors In- [ternal Revenue	1,600
Assayer	2,500
Melter	2,250

IDAHO—Ranks sixth in gold, seventh in silver, twelfth in square miles, forty-third in miles of railway, forty-fifth in population. Population, 1890, 84,385. First settlement, by Americans, 1842. Organized as a Territory, 1863. Admitted to the Union in 1890.

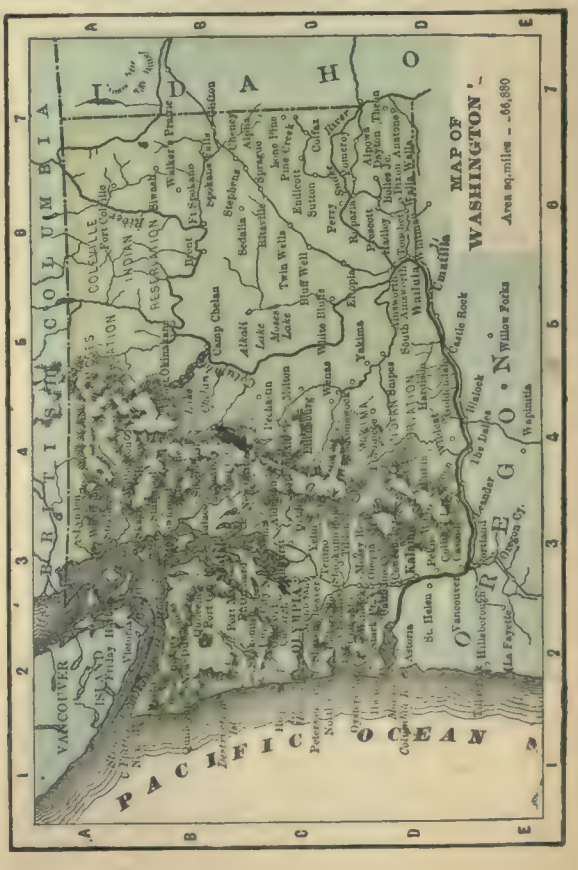
Salaries of Territorial Officers.

Governor	$3,000
Secretary	1,800
Treasurer	1,000
Auditor	1,800
Librarian	250
Chief Justice	3,000
2 Associate Justices	3,000
Senators and Representatives	$4 per day and 20c. mileage
2 District Attorneys	$250 and fees
Collector Internal Revenue	$2,250
3 Deputy Collectors	$1,400 to 1,600
Assayer	2,000
Assistant Assayer	1,440

WASHINGTON—Ranks eighth in gold, seventeenth in square miles, forty-first in population, forty-second in miles of railway. Population, according to territorial census in 1885, 127,292; U. S. Census 1890, 349,390. First settlement, by Americans, at Astoria, 1811. Organized as a Territory, 1853. Admitted to the Union, 1889.

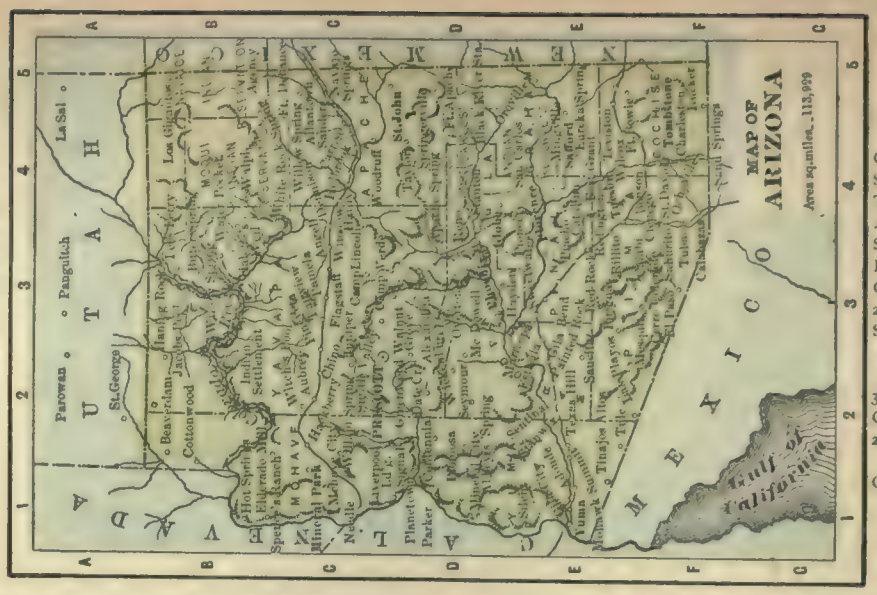
SALARIES OF STATE OFFICERS Gov'nor, $4,000; Secretary, $2,500; Treasurer, $2,000; Auditor, $2,000; Superintendent Public Instruct'n, $2,500; Librarian, $400; Ch'f Justice, $3,000; 3 Asso'ate Justices, $3,000; Senat'rs and Representatives, $4 a day and 20 cents mileage; Surveyor General, $2,500; Chief Clerk, $1,800; C'f Draftsman, $1,700; Collector of Customs, $1,000 and fees; Collector Intern'l Revenue, $2,250; 3 Deputy Collectors Internal Revenue, $1,200 to $1,600.





ARIZONA

Ranks fifth in silver, sixth in square miles, eighth in sheep, ninth in gold, thirty-eighth in miles of railway, forty-third in population. First explored, by the Spaniards, in 1526. Organized as Territory, 1863.



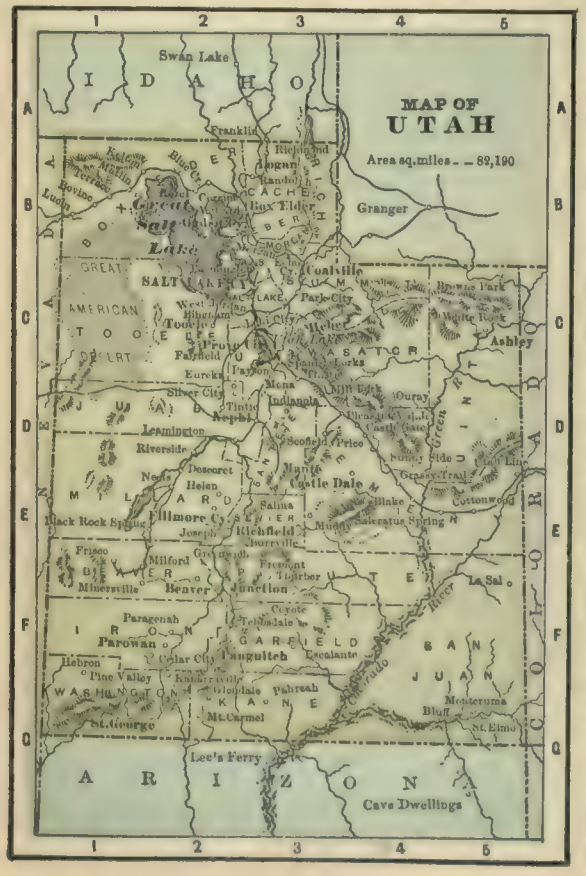
Salaries of Territorial Officers.

Governor	$2,500
Secretary	1,800
Treasurer	1,000
Auditor	1,000
Supt. Public Inst'n	2,000
Librarian	600
Chief Justice	3,000
2 Asso. Justices	3,000
Senators and Representatives	$4 per day [and 20 cents mileage
3 District Judges	$3,000
Collector Int. Rev.	2,250
2 Deputy Collectors	$1,600 to 1,700
Clerk	1,100

UTAH—Ranks third in silver, tenth in gold, eleventh in square miles, fifteenth in coal, thirty-fifth in miles of railway, thirty-eighth in population. First settlement, by Americans, at Salt Lake City, 1847. Organized as a Territory, 1850.

Salaries of Territorial Officers.

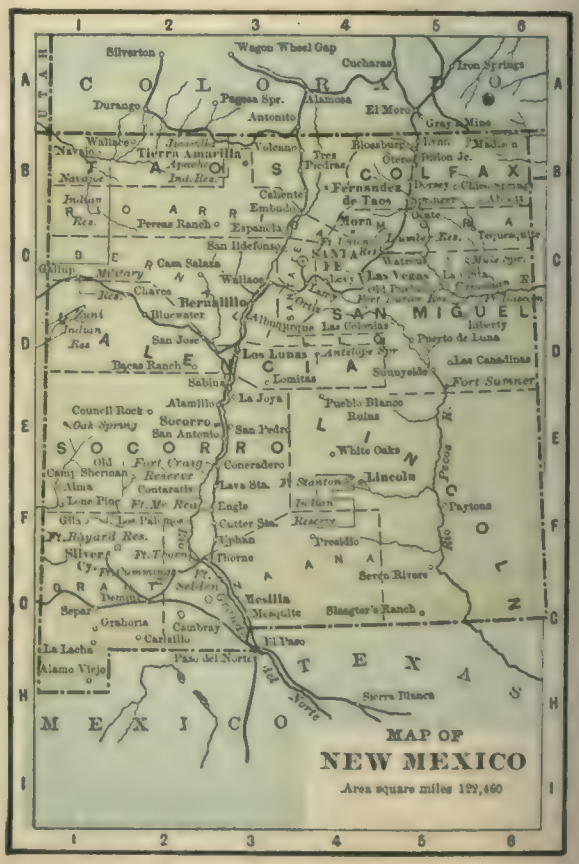
Governor	$2,600
Secretary	1,800
Treasurer	600
Auditor	1,500
Superintendent Public Instruction	1,500
Librarian	250
Chief Justice	3,000
2 Associate Justices	$3,000
Senators and Representatives	$4 per day and 20 cents mileage
District Attorney	$250 and fees
11 United States Commissioners	fees
Collector Internal Revenue	$2,500
2 Deputy Collectors	$1,600 to 1,800



NEW MEXICO

Ranks fifth in square miles, eighth in silver, eleventh in gold, nineteenth in sheep, twenty-second in cattle, thirtieth in miles of railroad, fortieth in population. First settlement, by the Spaniards, at Santa Fe, 1537. Organized as territory, 1850.

SALARIES OF TERRITORIAL OFFICERS—Governor, $2,600; Secretary, $1,800; Treasurer, $2,000; Auditor, $2,000; Com. Immigra'n, $900; Librarian, $600; Ch'f Justice, $3,000; 2 Associ'te Justices, $3,000; Senators and Representatives, $4 a day and 20c. mileage; Collector Internal Revenue, $2,500; 2 Deputy Collectors Internal Revenue, $1,200 to $1,700; Surveyor Gener'l, $2,500; Translator and Chief Clerk, $2,000.





WYOMING

Ranks ninth in square miles, twelfth in cattle, fourteenth in gold, sixteenth in coal, forty-fourth in miles of railway, forty-sixth in population. First settlement, by Americans, 1867. Organized as a Territory, 1868. Admitted to the Union in 1890.

Salaries of State Officers.

Governor	$2,600
Secretary	2,000
Treasurer	2,000
Auditor	2,000
Supt. Public Instr'n	2,000
Librarian	400
Chief Justice	3,000
2 Associate Justices [$4 a day, 20c. mileage	3,000
Senators and Repre's,	
Col. Inter. Rev.	$2,000
2 Deputy Col. Int. Rev. [$1,400 to	1,500
Surveyor Gen.	2,500
Chief Clerk	2,000
Chief Draftsman	1,800

THE INDIAN TERRITORY was originally set apart as a reservation for peaceful tribes. Organized in 1834, but not under the same forms of government as the other Territories. The lands are held in common by the Indians, each being allowed to cultivate as much as desired, and whites can hold land only by marrying an Indian. Grazing and agriculture are the leading industries. Oklahoma was opened up to white settlers in 1889. Ranks eighteenth in square miles and forty-fifth in miles of railway.

Indian Agencies.

ARAPAHOE.

Agent	$ 900

CHEYENNE.

Agent	$2,200
Physician	1,200

KAW.

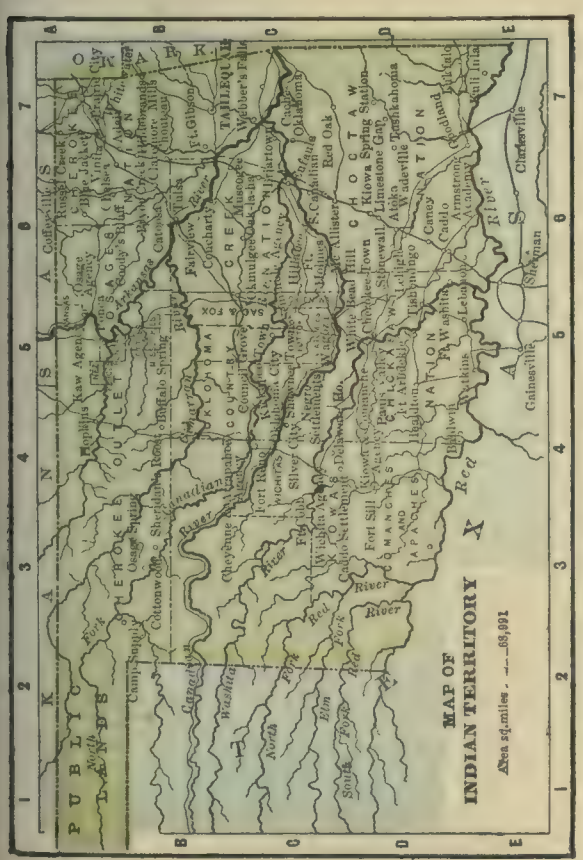
Superintendent	$1,600
Physician	1,200

KIOWA AND COMANCHE.

Agent	$1,000
Physician	1,000

OAKLAND.

Superintendent	$1,000
3 Teachers	600



MEXICO AND CUBA.

The Republic of Mexico comprises twenty-seven States, a Federal District and the territory of Lower California.

Agriculture, mining and stock raising constitute the principal industries. The climate in the elevated interior is mild and healthful, but along the coast it is very hot and pestilential. The Mexicans are a very mixed race, about one-tenth being Creoles, descendants of Spanish colonists.





ONTARIO

is the most important Province of Canada. Principal products, grain, fruit, lumber, petroleum, copper and iron. The population of Ontario is one-third of the whole Dominion. Toronto, the capital, is the manufacturing and educational center. The population of this Province is largely of British descent.



QUEBEC

was originally settled by the French, and the present population is largely composed of descendants of the Voyagers. The capital, Quebec, is the oldest city in the Dominion. Its fortifications were at one time considered, next to Gibraltar, the strongest in the world. Nevertheless, the fortress was captured by General Wolfe. The metropolis, Montreal, is noted for its churches.



MANITOBA

is a great wheat-growing country, and furs are also a leading product. The first settlers, 1731, were French, and English traders first made their appearance in 1767. The Province is now traversed by the Canada Pacific Railway. Climate very severe in winter, but occasionally hot in summer. The soil is such that wheat ripens in 110 days. Winnipeg is the capital.

HISTORICAL CHART.

THE WORLD'S HISTORY, FROM THE FLOOD TO THE YEAR 1890.

2350. The Deluge. 1921. Call of Abraham. 1728. Joseph sold into Egypt.
1706. Jacob removes into Egypt. 1574. Birth of Aaron. 1571. Moses born. 1491. Exodus.
1491. Law given from Mount Sinai. 1451. Death of Moses. 1451. Joshua.
1451. Israelites enter Canaan.

B. C.	HEBREWS.	EGYPT.	GREECE.
1300		The Pharaohs.	
	85. Deborah, judge in Israel.		
	45. Gideon slaughters the Midianites.		63. Jason and the Argonauts.
1200			
	88. Jepthah, judge.		
	56. Eli, judge.		94. Trojan war.
	37. Sampson.		84. Troy taken.
	20. Samuel.		
1100			
	95. Saul, king.	82. Cheops, king of Egypt, builds the great pyramid.	
	55. Death of Saul. David, king.		69. Codrus, last king of Athens, dies for his people.
	23. Revolt and death of Absolom.		
	15. Solomon, king.		68. Archons chosen instead of kings.
	4. Dedication of the Temple.		43. Ionians settle in Asia.
1000			
	75. Death of Solomon.	78. Shishak.	
	Rehoboam, king of **JUDAH.** / Revolt of the ten tribes. Jeroboam, king of **ISRAEL.**	71. Shishak conquers Judea and plunders the Temple.	
	58. Abijah defeats Jeroboam.	54. Nadab.	
	55. Asa, a pious king.	26. Samaria built.	
	4. Jehoshaphat.	18. Ahab and Jezabel.	
900			
	89. Jehoram.	Elijah, the prophet.	
	88. Philistines plunder Jerusalem.	88. Prophet Elisha.	Homer, Greek poet.
800			

B. C.	JUDAH.	ISRAEL.	ASSYRIA.	EGYPT.	GREECE.	ROME.
	78. Joash.	84. Jehu.			84. Lycurgus, lawgiver.	
	26. Jerusalem taken by Jehoash.	40. Jehoash defeats Benhadad, king of Syria.				
800						
	Joel, prophet.	Jonah, prophet.				
	59. Jotham.	47. Invasions of Assyrians under Tiglath-Pileser.	47. Tiglath-Pileser, king.		76. First Olympiad, from which the Greeks reckon time.	53. Rome founded by Romulus.
	42. Ahaz pays tribute to Tiglath-Pileser.	30. Hosea pays tribute.	28. Shalmaneser			50. Sabine war.
	26. Hezekiah.	6. Shalmaneser.			43. Messenian war.	
	Isaiah, prophet.					
	Nahum, prophet.	21. The ten tribes carried into captivity in Assyria.				
	10. Sennacherib destroyed.	9. Esarhaddon, king.		11. Invaded by Sennacherib.		
700						
	97. Manasseh.					
	42. Amon.			11. Necho. Canal from Nile to Red Sea attempted.	85. Second Messenian war.	
	41. Josiah.					
	Jeremiah, prophet.					
	Habakkuk, prophet.			6. Necho defeated by Nebuchadnezzar.	24. Code of Draco.	16. Tarquin the Elder.
	6. Jerusalem taken by Nebuchadnezzar.					
600						
	98. Jehoiachin.			94. Apries, king.	94. Solon, Athenian lawgiver.	78. Servius Tullius.
	96. Zedekiah.					
	88 Jerusalem destroyed.			72. Devastation of Egypt by Nebuchadnezzar.	60. Pisistratus.	34. Tarquin the Proud.
	Ezekiel, prophet.			Amasis, king.	14. Harmodius and Aristogiton.	10. Lucretia.
	Jews carried captive to Babylon.			25. Psammenit, king.		Brutus.
	61. Evil-Merodach.			Conquered by Cambyses, son of Cyrus. End of first Egyptian monarchy.	10. Hippias expelled.	Republic.
	60 Neriglissar.					Consuls
	55 Belshazzar.					
	38 Babylon taken by Cyrus the Mede.					
500	36. Jews restored by Cyrus.					

BABYLONIA.

Esarhaddon sends colonies into Samaria.

6. Nebuchadnezzar defeats Necho of Egypt and takes Jerusalem.

Nineveh destroyed by Nebuchadnezzar.

B. C.	MEDES and PERSIANS.	GREECE.	MACEDON.	ROME.
	21. Darius. Zechariah, prophet. Haggai, prophet. 15. Second Temple dedicated at Jerusalem.		8. Subdued by Darius.	1. Dictators.
500				
	94. Darius invades Greece. 90. His army defeated at Marathon. 85. Xerxes. 81. Invades Greece. 80. Returns defeated. 67. Ezra returns to Jerusalem. 64. Artaxerxes I. 56. Esther, queen of Artaxerxes. 55. Nehemiah rebuilds Jerusalem.	90. Miltiades at Marathon. 80. Leonidas at Thermopylæ. Themistocles at Salamis. 79. Battles of Mycale and Platæa. Persians retreat to their own country. 64. Third Messenian war. 31. Peloponnesian war. 29. Death of Pericles. Socrates.		93. Tribunes chosen. 82. Coriolanus. 56. Cincinnatus, dictator. 49. Virginius kills his daughter, Virginia, to save her from Appius Claudius. 40. Great famine in Rome.
400				
	Artaxerxes Mnemon. Cyrus the Younger revolts and is slain at battle of Cunaxa. 36. Darius Codomanus.	95. Corinthian war. 80. Olinthian war. 78. Theban war. 71. Battle of Leuctra. 38. War with Macedon.	59. Philip II. 36. Alexander.	91. Rome invaded by the Gauls. 90. Rome burned. 69. Tribunes abolished. 43. Beginning of the Samnian war. 40. Surrender of the Latin cities.
	35. Alexander conquers Athens and Thebes. 34. Invades Persia. Battle of Granicus. 33. Battle of Issus. 32. Conquers Egypt and Tyre. Enters Jerusalem. 31. Battle of Arbela. 28. India. 24. Alexander dies at Babylon.			
300				
	EGYPT. Ptolemy Lagus. 84. Ptolemy Philadelphus. 46. Ptolemy Evergetes.	**JUDEA.** Subject to Egypt.	**SYRIA.** Seleucus. 83. Antiochus I. 46. Seleucus II. 26. Seleucus III.	**GREECE.** 97. Republic re-established. 81. Achæan League formed. 98. Philip IV. 88. Lysimachus, king of Thrace, takes Macedon.
				80. Pyrrhus, king of Epirus, defeats the Romans. 74. Pyrrhus beaten. 65. First Punic war. 55. Carthaginians defeated. 7. Battle of the Metaurus.
200				

B. C.	EGYPT.	JUDEA.	SYRIA.	GREECE.	MACEDON.	ROME.
	21. Ptolemy Philopator.		23. Antiochus the Great.			18. Second Punic war.
						Hannibal defeats Romans at Ticinus.
	4. Ptolemy Epiphanes.			51. Renewal of the Achæan league.		16. Battle of Cannæ.
						14. First Macedonian war.
						3. Scipio in Africa.
200						2. Defeats Hannibal.
	80. Ptolemy Philometor.	Egyptians driven out by Antiochus.	75. Antiochus IV.	91. Sparta joins the league.	78. Perseus.	99. Second Macedonian war.
			30. Antiochus VII.			72. Third Macedonian war.
	45. Ptolemy Physcon.	65. Judas defeats Antiochus.	23. Antiochus VIII.	88. Laws of Lycurgus ended.	68. Battle of Pydna.	68. Defeat of Perseus.
		35. John Hyrcanus.	12. Antiochus IX.			49. Third Punic war.
	17. Ptolemy Lathyrus.	6. Aristobulus.		46. Corinth taken.		46. Carthage destroyed.
		5. Alexander Jannaus.				33. Spain conquered.
100				34. First Servile war.		
				2. Second Servile war.		
	Ptolemy Alexander.	70. Hyrcanus II.		90. Social war.		73. Third Servile war.
		67. Aristobulus II.	69. Antiochus XIII.	88. First Pontian war.		63. Cicero. Catiline.
				86. Second Pontian war.		60. First Triumvirate. Pompey, Crassus and Cæsar.
	65. Berenice.	66. Judea and Syria subdued by Pompey.				
	45. Cleopatra.	55. Cæsar invades Britain.		53. Crassus killed by the Parthians.		
		48. Civil war between Cæsar and Pompey.		44. Battle of Pharsalia. Pompey defeated.		
	30. Egypt subdued.	45. Cæsar, dictator.		44. Cæsar assassinated.		43. Second Triumvirate. Octavius, Anthony and Lepidus.
				30. Octavius Augustus, emperor.		
A. D.	The Advent.					9. Arminius defeats Varus.
	54. Nero.	70. Jerusalem destroyed by Titus.				81. Agricola conquers Britain.
100	17 Hadrian.	37. Jerusalem rebuilt.		63. Persecution of Christians.		196. Byzantium taken by Severus.
200	9. Caledonia invaded by Severus.	31. Persian war.		236. Persecution of Christians.		63. Franks in Gaul.
300	11. Edict to stop persecutions.			23. Constantine, sole emperor.		24. Constantinople founded.
	95.	**WESTERN EMPIRE.**			**EASTERN EMPIRE.**	
400	Alaric ravages Italy.	9. Romans driven out of Spain.			47. Atilla, king of the Huns, exacts tribute from Theodosius II	
	19. Romans withdraw from Britain.				51. Battle of Chalons.	
	76. Odoacer, king of the Heruli, puts an end to the empire.					

A. D.	WESTERN COUNTRIES.	ITALY.	EASTERN EMPIRE.	EASTERN COUNTRIES.
500	7. Clovis makes Paris his capital. 58. Clothaire, king of the Franks.	52. Ostrogoths expelled. 96. Lombards overrun Italy.	2. Ravaged by Persians. 29. Justinian Code published. 39. Belisarius in Italy.	31. Chosroes I., king of Persia.
600	28. Dagobert, king of France. 56. Clovis II., king of France. 78. Cadwallader, last king of the Britons.	62. Lombards defeat Constans II. 97. Anefesto, doge of Venice.	27. Heraclius invades Persia. 73. Saracens besiege Constantinople 79. seven years.	12. Mohammed begins to propagate his doctrines. 14. Persians take Syria and threaten Constantinople. 22. The Hegira. 38. Saracens in Arabia.
700	11. Saracens in Spain. 14. Charles Martel, duke of France. 32. Battle of Tours. 87. Danes in England.	74. Charlemagne conquers Lombards.	18. Second attempt by Saracens to take Constantinople.	
800	Charlemagne,	emperor of the West.	20. Michael II.	Aaron Al Raschid, caliph of Arabia. 9. Died.
900	**ENGLAND.** **Anglo-Saxon Kings** 28. Egbert, king. 71. Alfred the Great. 24. Athelstan. 33. Ravages Scotland.	**FRANCE.** 40. Charles the Bald. 12. Rollo the Norman has Normandy. **Capetian Dynasty.** 87. Hugh Capet, king.	**GERMANY.** **House of France.** 14. Louis the Debonnaire. **House of Saxony.** 19. Henry I., the Fowler. 34. Defeats Danes. 83. Otho III.	69. John Zimisces.
1000	16. Edmund. **Danish Kings.** 17. Canute I. 39 Canute II. 41 **Saxons Rest'd.** Edward the Confessor. 66. Battle of Hastings. **Norman Dynasty.** William I. 87. William II.	Robert II. 31. Henry I. 60. Philip I. 96. First Crusade. 98. War with England.	**House of Bavaria.** 2. Henry II. the Saint. **House of Franconia.** 22. Conrad II. 39. Henry III. 56. Henry IV. 73. War with the Saracens.	54. Schism of Greek Church. 81. Alexius Comnenus. 96. Suspicious reception of the Crusaders.	65. Turks take Jerusalem. 98. Crusaders take Antioch. 99. Crusaders take Jerusalem.
1100	Henry I. 35. Stephen.	8. Louis the Fat. 37. Louis VII.	6. Henry V. 38. Conrad II.		4. Crusaders take Acre.

A. D.	ENGLAND.	FRANCE.	GERMANY.	CONTEMPORARY.	EAST'N EMPIRE.
1100	54. Henry II. of **The Plantagenets.** 71. Conquest of Ireland. 89. Richard I., Cœur de Lion. 99. John Lackland.	80. Philip II.	52. Frederic I., Barbarossa. 54. Invades Italy. 62. Destroys Milan. 67. Italian League.	6. Milan a free republic. 25. Venice in her glory. 46. Second Crusade. 59. Guelphs and Ghibellines. 87. Third Crusade. 94. Fourth Crusade.	43. Manuel Comnenus. 47. Perfidy to German Crusaders.
1200	15. Magna Charta. 16. Henry III. 62. War of the Barons. 65. Defeat of Barons. 72. Edward I. 82. Conquest of Wales. 97. Sir William Wallace in Scotland.	14. Battle of Bouvines. 23. Louis VIII. 26. Louis IX. (St. Louis.) 70. Philip III. 85. Philip IV., the Fair.	9. Otto IV. 18. Frederic II. 41. Hanseatic League. 73. **House of Hapsburg.** Rudolph I. 92. Adolph of Nassau. 98. Albert I.	Fifth Crusade. 18. Genghis Khan. 17. Sixth Crusade. 38. Moorish kingdom of Granada. 48. Seventh Crusade. 68. Eighth Crusade. 82. Sicilian Vespers. 99. Osman I. Turkish Empire.	4. **Latin Emperors.** Baldwin I. 6. Peter de Courtenay. 19. Robert de Courtenay. 28. Baldwin II. 61. **Recovered by the Greeks.** Michael Paleologus.
1300	7. Edward II. 14. Battle of Bannockburn. 27. Edward III. 46. Battle of Cressy. 56. Battle of Poictiers. 77. Richard II. 99. Henry IV., of **House of Lancaster.**	14. Louis X. 16. Philip V. 21. Charles IV. 28. **House of Valois.** Philip VI. 50. John II. 64. Charles V. 80. Charles VI.	7. Revolt of Swiss. William Tell. 15. Battle of Morgarten. Swiss Independence. 49. **House of Luxemburg.** Charles IV. 78. Wenceslaus.	11. Suppression of Knights Templars. 40. Battle of Tarifa. Moors defeated. 48. Dreadful pestilence throughout the world. 54. Death of Rienzi. 61. Free Lances in Italy. 96. Battle of Nicopolis. Christians defeated. 97. Union of Denmark, Sweden and Norway.	28. Andronic III. 41. John Paleologus. 60. Turks in Adrianople. 91. Manuel Paleologus. Empire reduced by Turks to city of Constantinople.
1400	13. Henry V. War with France. 15. Battle of Agincourt. 22. Henry VI. 53. War of the Roses. 61. **House of York.** Edward IV. 83. { Edward V. / Richard III. 85. **House of Tudor.** Henry VII.	22. Charles VII. 29. Joan of Arc enters Orleans. 51. France relieved of the English. 61. Louis XI. 81. Charles VIII. 96. **House of Valois-Orleans.** Louis XII. 99. French take Milan.	10. Sigismond. 15. John Huss burned. 19. John Zisca, a Hussite leader, gains many victories and makes terms with Sigismund. 38. **House of Austria.** Albert II. 40. Frederic III. 93. Maximilian I.	2. Battle of Angora. Tamerlane captures Bajazet I. 22. Amurat II. reunites Ottoman Empire. 25. War between Milan and Venice. 40. Invention of Printing. 56. Battle of Belgrade. Turks defeated. 74. Ferdinand and Isabella in Spain. 92. Conquest of Granada. Columbus discovers America.	25. John Paleologus II. 48. Constantine Paleologus. 53. Constantinople captured by the Turks. End of the Empire.

A. D.	ENGLAND.	FRANCE.	GERMANY.	CONTEMPORARY.	AMERICA.
1500	9. Henry VIII. 13. Battle of Flodden. 15. Wolsey's power begins. 20. Field of the Cloth of Gold. 36. Ann Boleyn beheaded. 47. Edward VI. 53. Mary. 58. Elizabeth. 87. Mary of Scots beheaded. 88. Spanish Armada.	13. Invasion of English. 15. Francis I. 25. Battle of Pavia. 47. Henry II. 59. Francis II. 60. Huguenot War. 72. Massacre St. Bartholomew. 74. Henry III. 89. **House of Bourbon.** Henry IV. of Navarre.	17. Reformation. Luther. 19. Charles V. 21. Diet of Worms. 30. Augsburg Confession. 36. Death of John of Leyden 56. Abdication of Charles V. Ferdinand I. 64. Maximilian II. 76. Rudolph II.	21. Wars of Charles V. in Italy. 27. Capture of Rome. 33. Ivan IV. of Russia. 35. Order of Jesuits founded. 56. Philip II. of Spain. 59. Frederic II. of Denmark. 71. Battle of Lepanto. 81. Holland a republic. 82. Reformation of calendar.	12. Ponce de Leon, Florida. 19. Cortez, Mexico. 32. Pizarro, Peru. 41. De Soto in Louisiana. 65. St. Augustine in Florida, oldest city in United States.
1600	3. **House of Stuart.** James I. 25. Charles I. 49. **Commonwealth.** Oliver Cromwell. 60. **Restoration Stuarts.** Charles II. 66. Great fire, London. 79. Habeas corpus act. 85. James II. 88. William and Mary. 90. Battle of Boyne.	10. Louis XIII. 24. Cardinal Richelieu. 27. Siege of Rochelle. 43. Louis XIV. 48. Wars of the Fronde. 72. Invasion of Holland. 85. Revocation of the Edict of Nantes. 97. Peace of Ryswick.	12. Matthias. 18. Thirty-years' war. 17. Ferdinand II. 20. Battle of Prague. 30. Invaded by Gustavus Adolphus. 32. Battle of Lutzen. 34. Death of Wallenstein. 37. Ferdinand III. 59. Leopold I.	11. Gustavus Adolphus, Sweden. 13. Romanoff dynasty, Russia. 35. Tulip mania. 52. Van Tromp sweeps the Channel. 69. Turks take Candia. 83. Turks defeated at Vienna by John Sobieski, king of Poland. 89. Peter the Great, Russia. 97. Charles XII., Sweden. 99. Peace of Carlowitz.	7. Jamestown founded. 8. Quebec. 14. New York settled. 20. Plymouth Rock. 27. Swedes in Delaware. 34. Maryland. 83. Pennsylvania. 90. Sir William Phipps expedition.
1700	2. Anne. 4. Battle of Blenheim. 14. **House of Hanover.** George I. 27. George II. 39. War with Spain. 46. Battle of Culloden. 56. War with France. 60. George III. 75. War with colonies.	15. Louis XV. 16. George Law scheme. 45. Battle of Fontenoy. 74. Louis XVI. 78. Aids Americans. 89. States General. 90. Revolution. 92. Battle of Valmy. **Republic.** 99. Napoleon First Consul.	5. Joseph I. 11. Charles VI. 41. Charles VII. War of Austrian Succession. 45. **House of Lorraine.** Francis I. 65. Joseph II. 90. Leopold II. 92. Francis II.	1. War of the Spanish Succession. 9. Battle of Pultowa. Charles XII. defeated. 25. Catherine I., Russia. 40. Frederic II., Prussia. 41. Maria Theresa, queen of Hungary. 57. Battle of Prague. 60. Capture of Berlin. 62. Catherine II., Russia. 95. Partition of Poland.	59. Quebec taken. 61. Canada ceded to England. 75. Revolutionary war. 76. Declaration of Independence. 81. Surrender of Cornwallis. 89. Washington, president of United States.

A. D.	ENGLAND.	FRANCE.	PRUSSIA.	AUSTRIA.	CONTEMPORARY.	AMERICA.
1800	1. Union with Ireland.	4. Napoleon I., emperor	1. Takes Hanover.	Empire.	1. Alexander, Russia.	1. U. S. war with Tripoli,
	3. War with France.	5. Austerlitz.	6. Battle of Jena.	4. Francis.	8. French in Spain.	3. Louisiana ceded to U. S.
	5. Trafalgar.	6. Jena.	7. Peace of Tilsit.	5. Battle of Austerlitz.	12. Burning of Moscow.	Hayti a republic.
	8. Peninsular war.	9. Battle of Wagram.	8. Serfdom abolished.	10 Marriage of Maria Louisa.	14. Ferdinand VII., Spain,	12. U. S. war with England.
	12. War with U. S.	12. Campaign in Russia.	13. War with France.	13. War with France.	15. Holy alliance.	16. Buenos Ayres independent,
	13. Wellington clears Spain of the French.	14. Allies enter France.	14. Prussians occupy Paris.	15. Treaty of Vienna.	23. Civil war in Spain.	18. Chili independent.
	14. Peace with U. S.	**Restoration.** Louis XVIII.	15. Germanic confederation.	Lombardo-Venetian kingdom established.	25. Nicholas, Russia.	20. Florida ceded to U.S.
	15. Battle of Waterloo.	15. Fall of Napoleon.	34. Zollverein includes most of the States.	25. Hungarian diet meets.	27. Battle of Navarino. Greece independent.	Colombia, Bolivia and Peru independent.
	20 George IV.	24. Charles X.	40. Frederic William IV.	35. Ferdinand I.	43. Isabella, Spain.	21. Mexico independent.
	29 Catholic relief bill.	27. War with Algiers.	48. Revolution.	48. Hungarian war. Francis Joseph.	49. Victor Emanuel, Sardinia.	31. Pedro II., Brazil.
	30. William IV.	30. Louis Philippe. Conquest of Algiers.	50. New constitution.	56. Amnesty to Hungarians.	54. Siege of Sebastopol.	36. Texas a republic.
	37. Victoria	48. **Revolution.** Louis Napoleon, president.	53. Plot to overthrow government detected.	59. War with France and Italy. Solferino.	55. Alexander II., Russia.	45. U. S. annexes Texas.
	40 War with China.	51. Coup d'état.	**61. William I.**	61. Disaffection in Hungary.	59. Sardinia annexes Lombardy.	46. War between U. S. and Mexico.
	48. Trouble in Ireland.	52. Napoleon III., emp.	64. War with Denm'k.	66. Defeat at Sadowa. Withdrawal from confederation.	60. **Naples and Sicily taken.**	50. Lopez attempt, Cuba.
	54. Crimean war.	59. War with Austria.	66. War with Austria. Battle of Sadowa.	73. International exhibition, Vienna.	61. Victor Emanuel King of Italy.	61. Civil war in U. S.
	56 War with Persia.	60. Savoy and Nice annexed.	70. Invasion of France	74. Reforms.	68. Rev'lut'n in Spain.	63. French in Mexico.
	57 Mutiny in India.	63. French in Mexico.	71. William made emperor of Germ'y.	78. Occupation of Bosnia and Herzegovina.	70. Rome, capital of It. Amadeus, K. of Sp.	64. Maximilian emperor.
	66. Atlantic cable.	67. Exposition.	78. Attempt to assassinate the emperor.	80. Agreement with Germany on Eastern question.	75. Alfonso XII., Sp.	67. U. S. buys Alaska
	67. Fenian trouble. Abyssinian war.	70. War with Prussia. Napoleon taken at Sedan. Revolution	80. Socialists restless.	87. Alliance with Germany and Italy.	77. Russo-Turk. war.	71. War in Cuba.
	72. Genevan confer.	71. **Republic.** Thiers, president.	82. Imperial rescript.	89. Death of Crown prince Rudolph.	79. Humbert, K. of It.	72. Alabama claims awarded at Geneva.
	78. Afghanistan war.	73. MacMahon, pres.	88. Death of Wm. I. Accession, death of Frederick III. William II.	91. Attempt to assassinate emperor.	81. Assassination of Alexander II., Russia.	77. Canadian and U. S. fishery commission.
	79. Zulu war.	79. Jules Grèvy, president.	89. Germans in E. Africa and Samoa.		83. Coronation Alexander III.	78. Lorne, gov.-gen. of Canada.
	80. Famine in Ireland, Land League.	83. Occupation of Anam causes trouble with China.	90. Bismarck resigns German chancellorship.		86. Alfonso XIII., Sp.	81. Chili-Peru war.
	82. War in Egypt.	84 French bombard Foo chong	91. Death of Field-Mar. Von Moltke.		88. Italy takes Massowah in Africa.	82. Mexico encouraging railroads.
	88. Irish Home Rule discussions.	87. Grèvy resigns			90. Wilhelmina, Q. of the Netherlands. First Japanese parliament.	83. Marquis Lansdowne, gov. gen. of Canada.
	89. Stanley returns from Emin Pasha expedition.	88. Sadi Carnot, pres.			91. Anti foreign riots in China.	88. Slavery in Brazil abolished.
	90. Heligoland ceded to Germany.	89. Boulanger's election to the chamber causes great excitement.				89. Brazil becomes a Republic
	91. Overthrow and death of Parnell.	91. Boulanger kills himself.				90. Pan-Amer. confer. sits in Wash'ton.
						91. Revolut'n in Chili

A. D.

UNITED STATES.

ANTECEDENT.

1001. Icelandic discovery.
1492. Christopher Columbus discovers America.
1497. Cabot discovers Newfoundland.
1498. The Cabots on Atlantic coast.
1499. Amerigo Vespucci voyage.
1512. Florida discovered by Ponce de Leon.
1513. Balboa discovers the Pacific Ocean.
1521. Cortez conquers Mexico.
1528. Narvaëz visits Florida.
1534. Cartier explores the St. Lawrence.
1541. De Soto discovers the Mississippi.
1564. Huguenots in Florida.
1565. St. Augustine founded.
1585. Abortive settlement at Roanoke Island.

COLONIAL.

1600

7. Virginia. First settlement at Jamestown. 9. Second charter. 10. Famine. 12. Third charter. 19. First legislative assembly in America.

9. New York. Henry Hudson discovers Hudson River. 14. New Amsterdam settled by the Dutch.

20. Massachusetts. Puritans land at Plymouth. 23. Settlement at Dover, New Hampshire.

27. Delaware. Settled by Swedes and Finns. 38. Peter Minuit at Christina.

32. Maryland granted to Lord Baltimore. 34. Catholic settlement at St. Mary's.

35. Connecticut. Hartford, Windsor and Weathersfield settled.

36. Rhode Island. Settled by Roger Williams. 44. Charter.

64. New Jersey. Elizabethtown settled.

64. North Carolina settled.

70. South Carolina settled.

82. Pennsylvania settled by William Penn.

1700

33. Georgia by Oglethorpe.

41. New Hampshire separated from Massachusetts.

1. Revised charter.

80.— Charleston founded.

2. War with Spaniards and Indians.

15. Yamasee war.

11. War with the Tuscaroras.

76. Two provinces, East and West Jersey.

2. United, but subject to New York.

38. Distinct under Gov. Morris.

37. Pequot war.

39. Adopts constitution.

75. New York claims part of territory.

35. Clayborne rebellion.

39. Representative legislature.

49. Toleration.

60. Civil war ends.

91. Lord Baltimore deposed.

15. Restoration of proprietary rights.

86. Odious and oppressive administration of Sir Edmond Andros in New England, New York, New Jersey and Pennsylvania.

55. Taken by Gov. Stuyvesant and annexed to New Amsterdam.

82. Part of Pennsylvania.

2. Separate.

30. Boston founded.

39. Ownership of Maine confirmed.

75. King Philip's war.

92. Witches in Salem.

29. The grants to the Patroons.

43. Indian war.

64. Taken by the English.

83. Charter of liberties.

41. Negro plot.

22. Indian massacre.

24. Charter abrogated.

44. Second Indian massacre.

60. Restriction of trade to English marts

76. Bacon's rebellion.

89. King William's war.

2. Queen Anne's war.

44. King George's war.

54. French and Indian war.

55. Braddock's defeat.

58. Fort Du Quesne taken by Washington.

63. Pontiac's war.

65. Stamp act.

Colonial congress.

67. Tax on tea.

70. Boston massacre.

73. Destruction of tea in Boston Harbor.

74. Meeting of Congress in Philadelphia.

75. Revolutionary war.
Battle of Lexington.
Battle of Bunker Hill.

76. Declaration of independence.
Battle of Flatbush.

77. Surrender of Burgoyne.

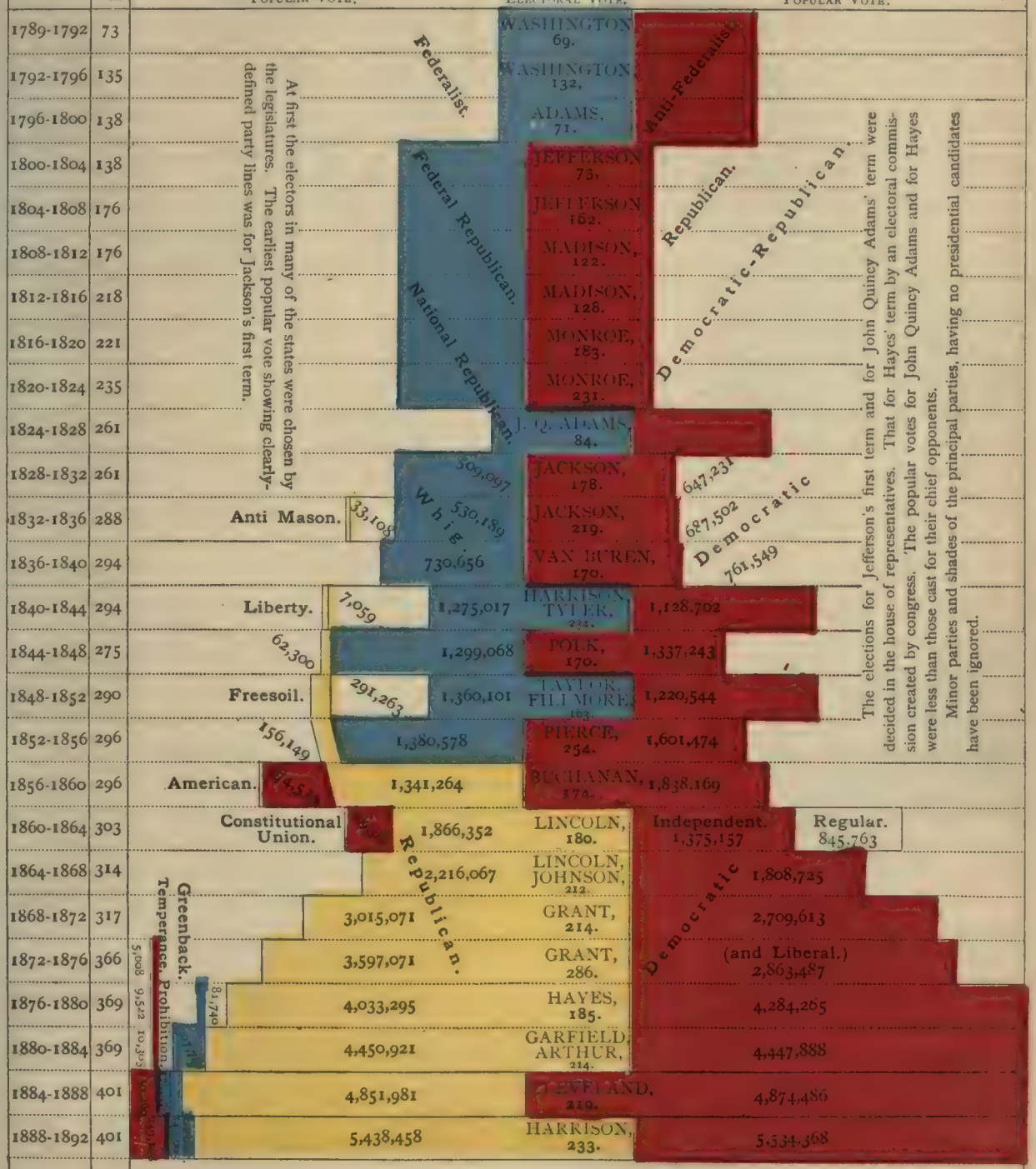
81. Surrender of Cornwallis. 83. Treaty of peace.

A. D.	INTERNAL. *Yellow*—Federalist, Whig, Republican.	*Red*—Anti-Federalist, Democrat.	Acquisition of Territory. Admission of States.	FOREIGN.
1787	Constitution adopted. 88. Ratified by eleven states.			
1789	**George Washington,** president. John Adams, vice-president. 90. Indian war in Ohio. Public debt, 1791, $75,463,470.	North Carolina ratifies the constitution. Rhode Island ratifies the constitution.	91. Vermont admitted. 92. Kentucky admitted.	
	93. **George Washington,** president. Public debt, $80,352,634. John Adams, vice-president. 94. Whiskey insurrection.	Trouble with Genet, French ambassador. Wayne's victory at Maumee.	96. Tennessee admitted.	95. Jay's treaty.
	97. **John Adams,** president. Public debt, $82,064,479. Thomas Jefferson, vice-president. 99. Death of Washington. Government removed from Philadelphia to Washington, D. C.			97. Treaty with France annulled. 98. War imminent. Treaty with France.
1800	1. **Thomas Jefferson,** president. Public debt, $83,038,050. Aaron Burr, vice-president.	4. Burr and Hamilton duel.	2. Ohio admitted. 3. Purchase of Louisiana.	1. War with Tripoli.
	5. **Thomas Jefferson,** president. Public debt, $82,312,150. George Clinton, vice-president.	7. Trial of Aaron Burr for conspiracy.		5. Treaty of peace, Tripoli. 7. Restrictions on trade by England and France.
	9. **James Madison,** president. Public debt, $57,023,192. George Clinton, vice-president.	11. Battle of Tippecanoe.	12. Louisiana admitted.	12. War with England. Invasion of Canada. Surrender of Mackinaw. Several naval battles.
	13. **James Madison,** president. Public debt, $55,962,827. Elbridge Gerry, vice-president. Key writes Star-Spangled Banner.	14. Battle of Lundy's Lane. Washington burned. Bombardment of Fort McHenry. 15. Battle of New Orleans.	16. Indiana admitted.	13. Perry's victory. Battle of the Thames. 14. Treaty of Ghent.
	17. **James Monroe,** president. Public debt, $123,491,965. Daniel Tompkins, vice-president.	18. Seminole war. 20. Missouri compromise.	17. Mississippi admitted. 18. Illinois admitted. 19. Alabama admitted. Purchase of Florida. 20. Maine admitted.	

1821	**James Monroe,** president. Public debt, $89,987,427. Daniel Tompkins, vice-president.	24. Lafayette's visit.	Missouri admitted.	22. Acknowledgment South American republics.
	25. **John Quincy Adams,** president. Public debt, $83,788,432. John C. Calhoun, vice-president.	26. John Adams and Thomas Jefferson die, July 4th. 28. A protective-tariff bill passed.		26. Convention with Great Britain about indemnities.
	29. **Andrew Jackson,** president. Public debt, $58,421,413. John C. Calhoun, vice-president. 32. Black Hawk war.	32. New tariff law. 32. Nullification in South Carolina. 32. Veto of bank bill.		30. Treaty with Turkey.
	33. **Andrew Jackson,** president. Public debt, $7,001,032. Martin Van Buren, vice-president.	33. Public funds withdrawn from U. S. bank. 35. Seminole war.	36. Arkansas admitted.	
	37. **Martin Van Buren,** president. Public debt, $336,957. Richard M. Johnson, vice-president.	37. Financial crisis. 39. Banks suspend specie payments.	37. Michigan admitted.	40. North-eastern boundary disputes.
	41. **William H. Harrison,** president. Public debt, $5,250,876. John Tyler, vice-president. **John Tyler,** president. Public debt, 1842, $13,594,481.	April 4th, Harrison died. 41. Veto of bank bill. 43. Dorr rebellion in Rhode Island.		42. Ashburton treaty. 44. Texas applies for annexation.
	45. **James K. Polk,** president. Public debt, $15,925,303. George M. Dallas, vice-president.	46. Wilmot proviso. 48. Gold discovered in California.	45. Texas annexed. Florida admitted. 46. Iowa admitted. 48. Acquisition of New Mexico and California. 48. Wisconsin admitted.	46. War with Mexico. 46. Battles of Palo Alto and Resaca de la Palma. 47. Buena Vista, Cerro Gordo, Contreras. Capture of city of Mexico. 48. Treaty of peace.
	49. **Zachary Taylor,** president. Public debt, $63,061,858. Millard Fillmore, vice-president. 50. **Millard Fillmore,** president. Public debt, $63,452,774.	50. July 9th, Taylor died. 50. Fugitive slave law.	50. California admitted. 50. Boundary of Texas established.	51. Lopez expedition to Cuba.
	53. **Franklin Pierce,** president. Public debt, $59,803,108. William Rufus King, vice-president.	54. Kansas-Nebraska bill. 55. Commotions in Kansas.		53. Martin Kossta protection. 54. Treaty with Japan.
	57. **James Buchanan,** president. Public debt, $28,699,831. John C. Breckenridge, vice-president.	57. Mormon insurrection. 57. Dred-Scott decision. 57. Financial distress. 59. John Brown's insurrection. 60. South Carolina secedes.	58. Minnesota admitted. 59. Oregon admitted.	59. San Juan occupied. Treaty with China. 60. Walker's filibusters invade Honduras.

1861	**Abraham Lincoln,** president. Public debt, $90,580,875. Hannibal Hamlin, vice-president. 61. Attack of Fort Sumter. Seizure of Harper's Ferry and Norfolk.	**Southern Confederacy.** 61. Mississippi, Alabama, Florida, Georgia, Louisiana, Texas, Virginia, Arkansas, Tennessee and North Carolina secede. Jefferson Davis, president. Battles of Bull Run, Wilson's Creek.	Kansas admitted.	Trent affair. England, France and Spain acknowledge Confederents as belligerents. Russia sympathizes with Federal government.
	62. Battle of Antietam.	62. Capture of Fort Donelson. Battles of Pea Ridge, Shiloh, Bull Run, Corinth, Fredericksburg.		
	63. Emancipation proclamation.	63. Chancellorsville. Siege of Vicksburg.	63. West Virginia admitted.	
	63. Battle of Gettysburg.	64. Wilderness battles. Siege of Petersburg. Sherman's march to the sea.	64. Nevada admitted.	64. Alabama sunk by the Kearsarge.
	65. **Abraham Lincoln,** president. Public debt, $2,680,647,869 Andrew Johnson, vice-president. April 14, President Lincoln shot. **Andrew Johnson,** president. Public debt, 1866, $2,773,236,173.	65. Battle of Five Forks. Surrender of Lee, of Johnston and of Kirby Smith. War ended.	67. Nebraska admitted. 68. Re-admission of Southern States.	66. Fenian raids on Canada.
	68. Impeachment and acquittal of President Johnson.			
	69. **Ulysses S. Grant,** president. Public debt, $2,588,452,213. Shuyler Colfax, vice-president.	70. Fifteenth amendment. 71. Great fire in Chicago.		71. Treaty with Great Britain. 72. Genevan award.
	73. **Ulysses S. Grant,** president. Public debt, $2,234,482,933. Henry Wilson, vice-president.	73. Modoc war. 76. Centennial exhibition.	76. Custer massacre. Colorado admitted.	73. The Virginius troubles with Spain.
	77. **Rutherford B. Hayes,** president. Public debt, $2,205,301,392. William A. Wheeler, vice-president.	77. Railroad riots. 79. Resumption of specie payments.		
	81. **James A. Garfield,** president. Public debt, $2,069,013,569. Chester A. Arthur, vice-president. 81. **Chester A. Arthur,** president. Public debt, 1882, $1,918,312,994. Public debt, 1883, $1,884,171,728.	81. President Garfield shot, July 2d; died, September 19th. 83. Apaches captured by Gen. Crook.	83. Capital of Dakota removed from Yankton to Bismark. General strike of telegraph operators.	81. Treaty with China. 87. Fisheries disputes. 88. Canadian Fishery treaty adjusted. Lord Sackville incident.
	85. **Grover Cleveland,** president. Public debt (Dec. 1, 1884) $1,417,199,862. Thomas A. Hendricks, vice-president.	86. Labor riots. Haymarket Dynamite massacre, Chicago.	89. The two Dakotas, Washington and Montana admitted. Disastrous Flood in Johnstown, Pa. Burning of Seattle Washington.	89. Ill feeling with Germany, about Samoa. 91. Controversy with 92. Chili concerning the killing of American seamen in Valparaiso.
	89. **Benjamin Harrison,** president. Public debt, Dec. 1, 1888, $1,200,724,463. Levi P. Morton, vice-president.			
	90. Passage of the McKinley Tariff bill and the Dependent Pension bill. Mormons abolish polygamy. Idaho and Wyoming admitted.	91. Mafiisti lynched in New Orleans. Kentucky adopts a new constitution.		

POLITICAL PARTIES IN THE UNITED STATES.



The Eighteen Decisive Battles of the World.

(*Name of Victorious Nation Appears First.*)

Conquest .....
Independence .....
Invasion resisted.....
International and political.

MARATHON,
B. C. 490
Athenians.—Persians.
(MILTIADES.)
Free governments preserved.

SIEGE OF SYRACUSE, B. C. 414.
Syracusans and Spartans—
Athenians,
(GYLIPPUS.)
Athenian power checked.

BLENHEIM,
A. D. 1704.
English and Austrians,
French and Bavarians.
(MARLBOROUGH.)
French ascendency curbed.

WINFELD-LIPPE,
A. D. 9.
Germans — Romans.
(ARMINIUS.)
Teutonic independence.

METAURUS,
B. C. 207.
Romans—Carthaginians.
(NERO AND LIVIUS.)
Beginning of decline of Carthage.

VALMY, A. D. 1792
(KELLERMANN.)
French Rep. — Allied Powers.
First success of Republican against foreigners

HASTINGS,
A. D. 1066.
(WILLIAM.)
Normans — Anglo-Saxons.
New Régime in England.

SEDAN,
A. D. 1870.
Prussians — French.
French empire crushed.
German empire estab'd.

TOURS, A. D. 732.
Franks—Saracens.
(CHARLES MARTEL.)
Recoil of Mohammedanism.

GETTYSBURG, A. D. 1863.
(MEADE.)
U. S.—C. S. A.
Crisis of war
for the Union.

SIEGE OF ORLEANS, A. D. 1429.
French - English.
(JOAN OF ARC.)
Redemption of France begun.

ARBELA,
B. C. 331.
Greeks — Persians.
(ALEXANDER.)
Extinction of the Persian empire.

WATERLOO.
A. D. 1815.
(WELLINGTON AND BLUCHER.)
English and Prussians — French.
Overthrow of Napoleon.

SARATOGA,
A. D. 1777.
Americans — English.
(GATES.)
Crisis, war of independence

SPANISH ARMADA, A. D. 1588.
English and Dutch—Spaniards.
(EFFINGHAM.)
England saved from invasion.

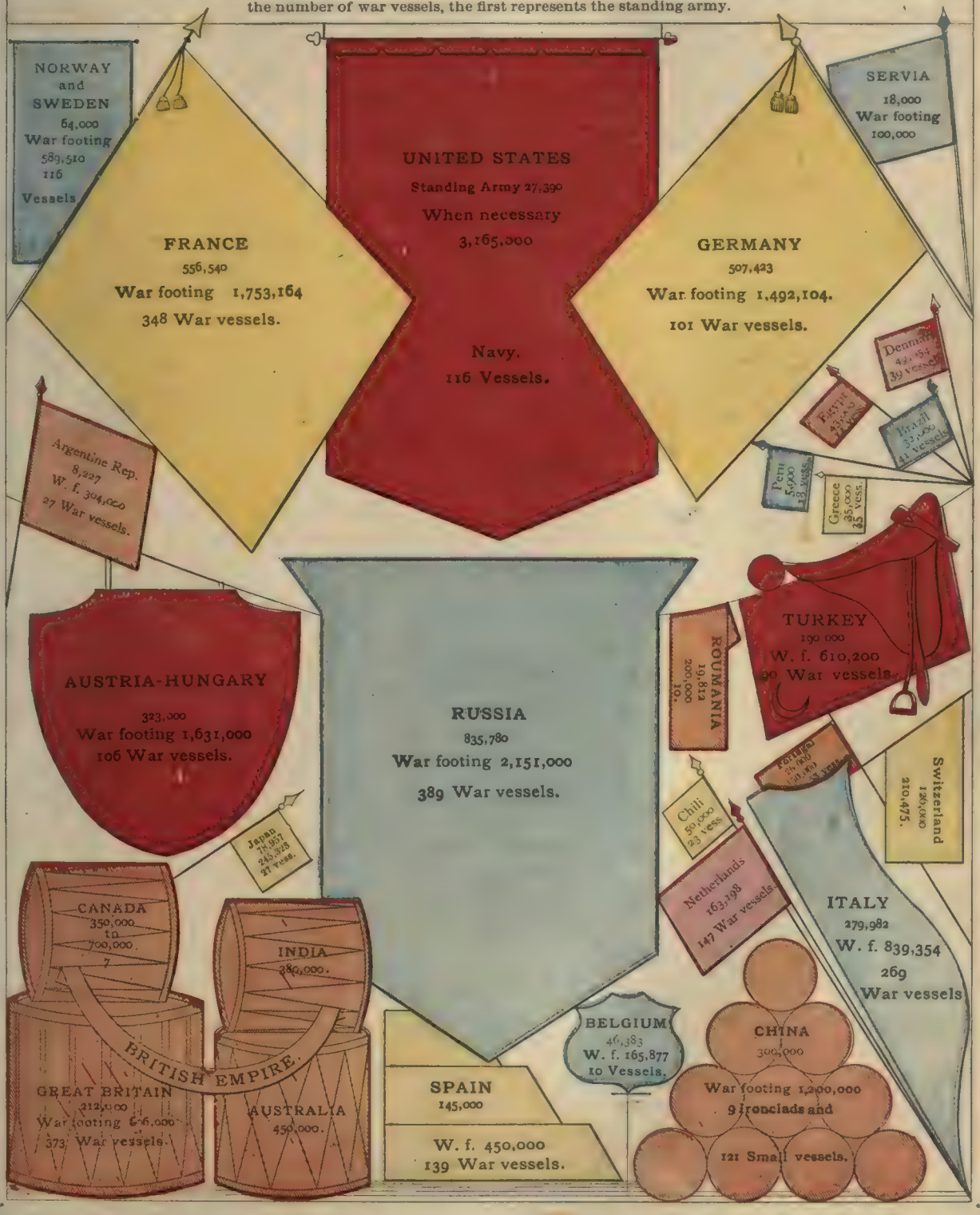
CHALONS, A. D. 451.
Romans and Visigoths — Huns.
ÆTIUS AND THEODORIC.
Europe saved from Attila's Huns.

PULTOWA,
A. D. 1709.
Russians — Swedes.
(PETER THE GREAT.)
Slavonic triumph.

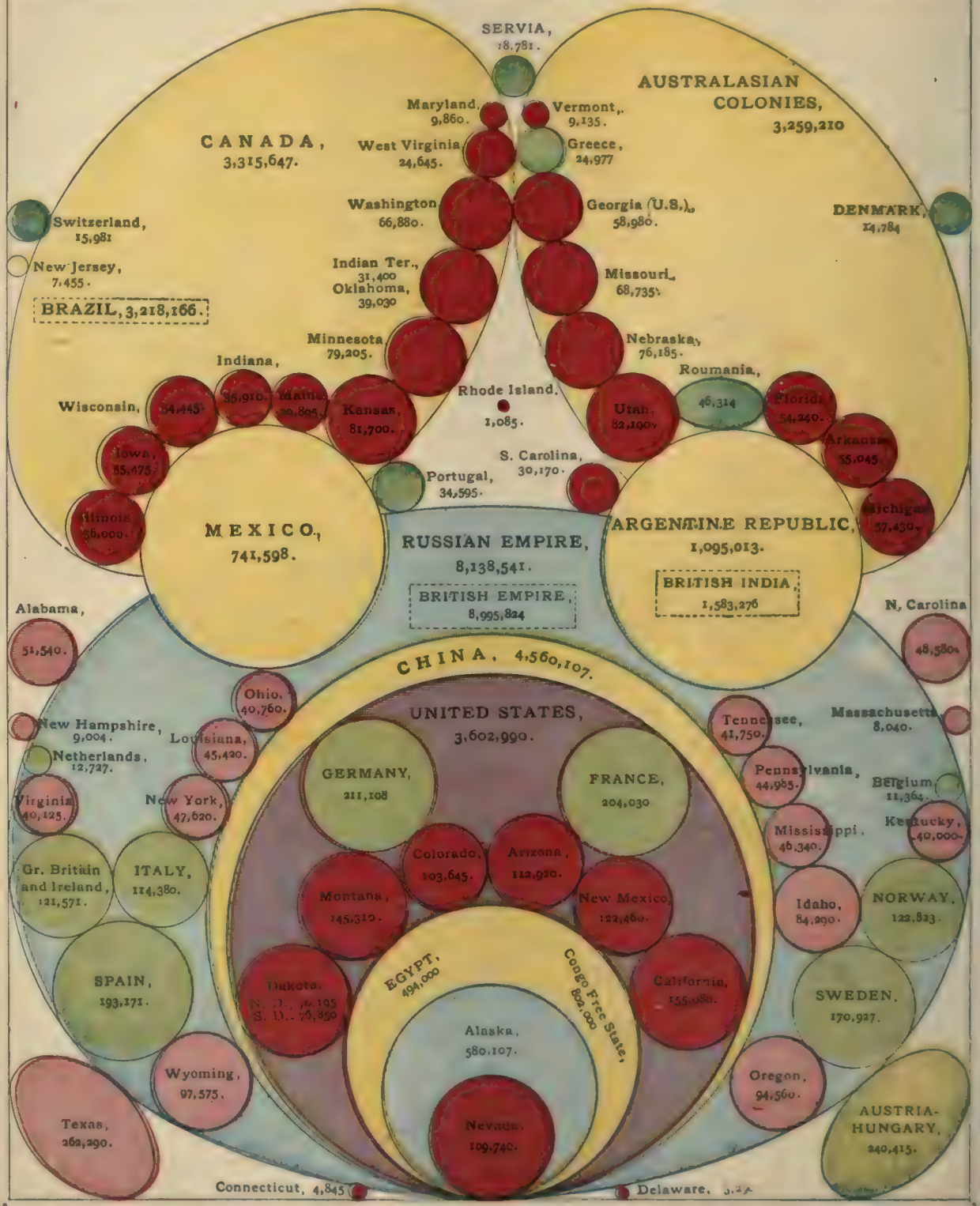
SIEGE OF SEBASTOPOL,
A. D. 1854-5.
English, French and Turks — Russians.
Delay in expansion of Russia.

MILITARY and NAVAL STRENGTH of VARIOUS COUNTRIES.

Based on the numerical strength of the respective armies on a war footing; where more than one number is given, besides the number of war vessels, the first represents the standing army.



COMPARATIVE AREA IN SQUARE MILES OF STATES AND FOREIGN COUNTRIES.



A DICTIONARY OF DATES.

The World's Progress as shown in an Alphabetical Record of Notable Events and Discoveries.

Air-Balloons invented by Gusmac, a Jesuit, in 1729. Revived in France by M. Montgolfier, in 1783.

Air-Guns invented by Guhr, of Nuremberg, in 1656.

Air-Pumps invented in 1650.

Algebra known in Europe in 1300; in general use in 1590.

Almanacs first published in 1470, by Martin Hkus, at Buda. The first almanac in England was printed at Oxford, in 1673.

Alien and Sedition Acts passed by Congress in 1798; expired, by limitation, Jan. 26, 1801.

Alphabet. The Ionic alphabet was introduced 399 years before Christ. Before this time the Greek letters were but sixteen in number.

Anæsthesia discovered 1844.

Anchors invented in 587.

Anti-Slavery Society (American) organized Dec. 6, 1833, at Philadelphia.

Argand Lamps invented by Aimé Argand, of Geneva, about the year 1782.

Arquebus introduced about 1520, and remained in use until after 1567, when the matchlock supplanted it. In 1630 the flint lock was invented, and the musket was introduced.

Banking. The first bank in Europe was the Bank of Venice, 1171. The Bank of England was established in 1694, the Bank of North America, 1781.

Barometers invented in 1626; wheel barometers in 1663, phosphoric in 1675, pendant in 1695, and marine in 1700.

Battering-Ram invented 441 years before Christ.

Bayonets invented at Bayonne in 1670. First used in England in 1693. At first these had wooden handles fitting into the guns, but in 1699 the socket bayonet was introduced.

Bellows.—Strabo informs us that the invention of bellows is due to the Scythian philosopher, Anacharsis, who lived in the time of Solon.

Bells invented by Paulinus, bishop of Nola, in Campagnia, in or about the year 400. They were first used in France in 550, in Greece in 864, and in the churches of Europe in 900. In Switzerland they first appeared in 1020.

Blankets first made in England in 1340.

Blood, circulation of, discovered in 1619.

Blue (Prussian) first made in Berlin, in 1704.

Bombs invented at Venlo, in 1588, and used first in the service of France in 1634.

Books, in their present form, were invented by Attalus, king of Pergamus, in 887.

Boots invented 907 years before Christ.

Boston Fire Nov. 9, 1872. Loss, $73,600,000.

Bread first made with yeast by the English about 1650.

Bricks first used in England by the Romans. In 1625 their regular size was fixed by Charles I.

Bridges. The first bridge of stone in England was that built at Bow, near Stratford, in 1087.

Buckles invented about 1680.

Bullets of stone used in 1514. Iron bullets first mentioned in 1550.

Bullion (Assaying of) introduced in 1354.

Butter.—The first mention of butter is that of Herodotus, who, in describing the Scythians, says: "These people pour the milk of their mares into wooden vessels, cause it to be violently stirred or shaken by their blind slaves, and separate the part that arises to the surface, as they consider it more valuable than that which is collected below it." Soon after the death of Hippocrates, we read that the Greeks thought the butter which the Thracians ate a wonderful kind of food. The ancient Ethiopians appear to have used butter as food. The ancient Germans were butter-makers.

Calico-Printing and the Dutch-loom engine first used in 1670.

Camera Obscura invented by Baptista Porta, in 1515.

Canal.—The first English navigable canal was finished in 1134.

Candles of tallow took the place of prepared splinters of wood in 1290.

Cannon invented in 1330. First used by the English in 1346; used first in England in 1445; in Denmark in 1354; by the Spaniards in 1406. The first iron cannon were made in England, in 1547.

Caps first worn in 1449.

Cards invented for the amusement of Charles VI., in 1380.

Carriages introduced in England in 1580; in Vienna in 1515.

Chain Shot invented by De Wit, Dutch Admiral, in 1666.

Chess invented 608 years before Christ.

Chicago Fire, Oct. 8-11, 1871. Loss, $200,000,000; about 250 persons perished, and 98,500 rendered destitute; 25,000 buildings destroyed.

Chimes on Bells invented at Alvest in 1487.

Chimneys first introduced in England in 1200, but at first only in the kitchen or large hall.

China made at Dresden, in Saxony, in 1706; at Chelsea (England) in 1752; by Mr. Wedgwood in 1762.

Civil Rights Bill passed by Congress 1866.

Civil Service Reform Bill introduced in congress Jan. 20, 1867. Act for rules to be prescribed by the President for civil service examinations passed March 3, 1871, and commissioners for that purpose appointed June 28, with G. W. Curtis as chairman.

Clay's Compromise, tariff, 1833; slavery, 1850.

Clocks, called water-clocks, were first used in Rome 158 years before Christ. Clocks and dials were first put up in churches in 913. In 801 clocks were made to strike the hours by the Arabians, and by the Italians in 1300. A striking-clock was used at Westminster in 1368. The first portable striking-clock was made in 1530, Richard Harris, of London, invented clocks with pendulums about 1641. To distinguish these from dials, they were first called sun-"nocturnal, or night-dials." Repeating clocks and watches were invented by a maker named Barlow in 1676.

Coaches. Covered carriages appear to have been used by the old Romans. In the year 1588, Duke Julius of Brunswick published an act against riding in coaches. Philip II, of Pomerania-Stettin, published a similar document in 1608. Coaches appear to have been used in France very early. An ordinance of Philip the Fair, issued in 1294, for suppressing luxury, forbids citizens' wives to ride in coaches. Coaches were first used in England in 1565, the first being that made for the Earl of Rutland. In 1601 an act was passed to prevent men riding in coaches, on the score of its effeminacy. Coaches began to be common in 1605, and were petitioned against by the saddlers and others. Hackney coaches introduced in 1634. In 1661, a stage coach was two days going from London to Oxford, and the "Flying Coach" was thirteen hours, even in summer weather, when the roads were at their best.

Coal first dug for fuel in 1234.

Coin. Silver was first coined by Phidon, King of Argos, 869 B.C. In Rome, silver money was first coined 269 B.C. Gold and silver coins first used in the East. Coin first used in Britain 25 B.C., and in Scotland not until 248 years later. In 1101, round coins were first used in England. Silver halfpence and farthings were coined in the reign of John, and pence were the largest current coins. Gold was first coined in England in 1087; in Bohemia in 1301. In 1531, groats and half-groats were the largest silver coin in England. Gold was first coined in Venice in 1346. Shillings were first coined in England in 1068. Crowns and half-crowns were first coined in 1551. Henry III introduced copper money into France in 1580. Copper money introduced into England by James I in 1620. The process of milling coin introduced in 1662. The mint of the United States of America was established in 1793.

Coining with a die first invented in 1617, and first used in England in 1620.

Compass (Mariner's) invented in China 1120 B.C.; used in Venice 1260; improved at Naples in 1302. Its variations observed in 1500; its dipping in 1576.

Copyright. The copyright law was first passed by Congress in 1791, the term being made fourteen years; amended, and term extended to 28 years, with renewal for 14 more, in 1831.

Cotton. The first raised in the United States was in 1621, in Virginia; first exported from U. S. in 1747.

Cotton Gin invented in 1793, by Eli Whitney.

Culverins first made in England in 1534.

Daguerreotypes first made in France, 1839.

Declaration of American Independence, 1776; recognition, 1782.

Delf (or **Delft**) earthenware invented at Firenze in 1450.

Diamonds first cut and polished at Bruges in 1489.

Dice invented 1500 B.C.

Dipping Needle invented by Robert Norman, 1580.

Distilling first practiced in 1150.

Diving-Bell. This machine appears to have been known in 1509, and repeated mention of its use occurs in historical chronicles from that date.

Electric Light. Invented at London, in 1874, by two Russians, Lodyguin and Kosloff. The

Jablochkoff candle proved successful in 1878 in lighting the streets of Paris. In the United States, the Sawyer-Man light appeared in 1878, and Edison began his experiments in electric lighting in the same year.

Emancipation Proclamation. January 1, 1863.

Engraving on metal invented in 1423; on copper in 1511. Improved process introduced by Prince Rupert of Palatine in 1648. Engraving process for tints invented by Barable, a Frenchman, in 1761. Engraving on wood invented at Flanders in 1423, and revived in 1511 by Albert Durer. Engraving on glass invented at Paris in 1799, by Bondier.

Envelopes for letters were first used in 1839.

Etching on copper with aqua fortis was introduced in 1512.

Ether was first used in surgical operations in 1844.

Express. The first American express was operated between New York and Boston, in 1821, by W. F. Harnden.

False Hair introduced by the courtesans in Italy, and first brought into England from France in 1572.

Fenian Raids into Canada, May 31, 1866; resumed February 3, 1870.

Filibustering raids of Wm. Walker, 1853-60.

Fire Engines, to force water, existed in very ancient times. The first of the kind now in use, but of a vastly inferior character, was invented by two Dutchmen, each named Jan van der Heide, at Amsterdam, in 1518. In 1657 an improved engine was introduced at Nuremberg by John Hantsch. Fire-engines were first known at Paris in 1699. The first volunteer fire company in America was the Union of Philadelphia, about 1736.

Flag. The American flag was first used by Washington at Cambridge, January 1, 1776.

Fortification. The present mode introduced about 1530.

Forks are, comparatively speaking, quite a modern invention. They were first known in Italy toward the end of the 15th century. They began to be known in France by the end of the 16th century. Introduced in England in 1608.

Free Soil Party. The first national convention was held at Buffalo, Aug. 9, 1848.

Fugitive Slave Law passed by Congress, Sept. 12, 1850.

Gamut in music invented by Guy L'Aretin in 1025.

Gas was first evolved from coal by Dr. Clayton in 1739. Its first application, as an illuminating medium, was made by Mr. Murdoch, in Cornwall, England, in 1792. Sir H. Davy, before a committee of the House of Commons, declared it was not practicable to light London with gas. The first display of gaslight was in Birmingham, on the occasion of the peace rejoicings of 1802. It was introduced for lighting the shops and streets of London, generally, in 1814. In the United States it was introduced in 1822, in Boston.

Gilding, with gold leaf, invented in 1273.

Glass introduced into England, by Benedict, a monk, in 674. First used in England, for bottles, etc., in 1557. The first plate-glass, made at Lambeth, in 1673. Window glass first made in England in 1557.

Grist Mills invented in Ireland in 214.

Gunpowder was invented by the monk Schwartz in 1330, although used by the Chinese A.D. 80. The Byzantines used Greek fire A.D. 668.

Guns invented in 1330; used by the Moors at the siege of Algeciras, in Spain, in 1344; at the battle of Crecy in 1346, and at the siege of Calais in the year following. Adopted by Denmark in 1354; used by the Venetians, at sea, against the Genoese, in 1377. First used by the Spanish in 1406. The early English guns were first made of brass in 1635; in 1547 they were made of iron. Bombs and mortars were invented in 1543.

Hartford Convention (anti-war), Dec. 15, 1814.

Handkerchiefs were first manufactured at Paisley, in Scotland, in 1743.

Heraldry originated in the year 1100.

Homœopathy was introduced into the United States in 1825.

Horseshoes. Although the ancients protected the hoofs of their horses with some covering, horseshoes, of the kind now known, were not in general use until the ninth century.

Hour-Glasses invented in Alexandria 240.

Hydrometer. The oldest mention of this instrument belongs to the 5th century, but its invention has been attributed to Archimedes.

Infallibility. The dogma of Papal Infallibility promulgated in 1870.

Inoculation for small-pox, first tried on criminals in 1721. Vaccine discovered by Dr. Jenner in 1796.

Insurance. The first fire insurance office in America was in Boston, 1724. The first for life insurance in London, 1772; the first American, in Philadelphia, in 1812. Marine insurance dates back to 1598 in England, and to 1721 in America.

Interior Department established March 3, 1849.

Jesuits. The order was founded by Ignatius Loyola in 1541.

Judiciary Act passed by Congress Feb. 13, 1801.

Knitting Stockings invented in Spain about 1560.

Knives were first used in England about 1550.

Know-Nothing Party (American) arose in New York in 1853. National platform adopted and candidate for the Presidency (Fillmore) in 1856.

Lace. The knitting of lace is a German invention, first known about the middle of the 16th century.

Lamp (Sir Humphry Davy's safety) for preventing explosions by fire damp in coal mines, 1815.

Lanterns invented by Alfred the Great 890.

Leyden Jar invented in 1745

Liberty Party, national convention at Buffalo, Aug. 30, 1843.

Library. The oldest American library is that of Harvard College, Cambridge, 1638. The first subscription library was established at Philadelphia in 1731.

Lightning-rods were first used by Benjamin Franklin about 1752.

Life-Boats invented by Greathead, who received a premium from Parliament in May, 1802.

Linen when first made in England was regarded as a great luxury, and was very costly. A company of linen-weavers from the Netherlands was established in London in 1386.

Lithographic Printing first brought into England in 1801

Magic Lanterns invented in 1252.

Magna Charta signed 1215.

Magnifying-Glasses first made in England by Roger Bacon 1269.

Maps and Globes invented by Anaximander 600 B.C.

Marble Paper. A German invention belonging to the 17th century.

Matches. Friction matches first used in 1829.

Mecklenburg county, N. C., Declaration of Independence issued May 31, 1776.

Medicinal Simples first brought into Europe, from the East, in 1200.

Microscopes first used in Germany in 1621. Improved by Torricelli in 1624.

Military Academy, West Point, founded by Congress March 16, 1802.

Missouri Compromise passed March 3, 1820, and repealed May 24, 1854. It restricted slavery to south of 36° 30'.

Mirrors (Silvering) invented by Praxiteles 228 years B.C.

Monroe Doctrine declared in the message of President Monroe, Dec. 2, 1823.

Mormons arrived at Salt Lake Valley, Utah, July 24, 1847.

Musical Notes invented in 1070; improved 1330; printed 1502.

Nantes, Edict of, tolerating Protestants, issued April 13, 1598; revocation, Oct. 22, 1685.

Needles first made in England by a native of India in 1545; re-invented by Christopher Greening in 1560.

Netherlands, revolt of, 1565 to 1580.

New Orleans, Battle of, Jan. 8, 1815, Jackson defeating the British. Captured by Farragut April 26, 1862.

Newspaper. The first authentic newspaper was printed in 1494; first daily, *Frankfort Gazette*, 1615. The first English was the *Weekly Newes*, 1622; the first in France, *Gazette de France*, 1631. The first advertisement appeared in 1648. The first American newspaper was printed in Boston, Sept. 25, 1690, and was called *Publick Occurrences, Foreign and Domestic*. The first continuously printed in America was the *Boston News Letter*, 1702; first daily, *The Pennsylvania Packet*, 1784.

Nullification Ordinance passed by South Carolina Nov. 19, 1832. The proclamation of President Jackson denouncing the same was issued Dec. 10, 1832.

Omnibuses were first used in New York in 1830.

Organs were invented in 750.

Ostend Manifesto, issued Oct. 21, 1854.

Paper Hangings. The invention of hangings of paper to take the place of other more costly hangings, has been attributed to a manufacturer of paper hangings, named Breitkopf, of Leipsic. That kind known as velvet-paper is said to have been invented by Jerome Lanyer, an Englishman, who received a patent for it in 1634, although the invention has also been claimed for Francois, a Frenchman, who is asserted to have introduced it at Rouen in 1620.

Paper made of cotton, in use in 1000. Made of linen rags in 1319. First introduced in England in 1588. White paper first made there in 1690. Paper was made from straw in 1800.

Paper Money first used in America in 1740, and revived in 1788.

Parchment invented by King Attalus, of Pergamus, 887 B.C.

Patent Right Law first enacted in U. S., April 15, 1790.

Paving with Stones first introduced at Paris in 1184.

Philadelphia was founded by William Penn in 1682. Riots, native American and Irish, May 6 to 8, 1844

Penny Post introduced for London and its suburbs by an upholsterer named Murray in 1683. Adopted by the government in 1711. First set up in 1774 in Dublin. Carried out on an enlarged scale in 1794, and made a twopenny post in 1801.

Pens. The style, or point or bone and metal, which was used for writing on tables coated with wax, gave place to the reed, pointed and split, and used as a pen with some colored liquids. These were gradually abandoned in favor of quills. The first known record of quills being used for pens is that of Isidore, who died in 636, but supposed to have been introduced at an earlier date. The substitution of steel for quill pens took place early in the present century, yet strange to say, nothing is known with certainty of the person who first invented the metallic pen.

Phonograph invented in 1877 by T. A. Edison.

Phosphorus first made in 1677.

Photographs were first produced in England in 1800, perfected in 1841.

Pianoforte invented about 1710 in Italy.

Pilgrims landed at Plymouth, Mass., Dec. 21, 1620, although the date is commonly given as Dec. 22.

Pins were brought from France, and first used in England by Catherine Howard, Queen of Henry VIII. Before that time both sexes used ribbons, loop-holes, laces with points and tags, hooks and eyes, and small skewers made of gold, silver, and brass. Pins were first made by machinery in America in 1832.

Pipes of Lead, for water, first cast in 1539.

Pistols first used by the cavalry in 1544.

Pitch and tar first made from pit coal at Bristol in 1779.

Plaster of Paris. Casting with it from the face invented in 1470.

Porcelain of Saxony greatly improved in 1767.

Port-Holes introduced for ships of war in 1545.

Post-Office first established between Vienna and Brussels in 1516. Posts established regularly between London and all the principal towns throughout England in 1635. Postage stamps were introduced in England in 1840; in the United States in 1847.

Pottery improved greatly by Wedgwood in 1763.

Printing. The Assyrians and Babylonians used clay tablets, and wooden blocks were used by the Chinese as early as 952. Printing from movable types was invented by Faust in 1441, and made public by Gutenberg in 1454, although the invention is also claimed for L. Koster of Haarlem as early as 1423. The first Bible was printed by Faust and Schöffer in 1456, and they also printed the first book with date, a Latin Psalter, in 1457. Wooden type first introduced into England, by William Caxton, a London merchant, in 1477. The first English press was set up in Westminster Abbey, where it remained until 1494. The first American book, "Escala Espiritual," was printed by Juan Hablas, Mexico, about 1535. The first press in the United States was that of Stephen Daye, at Cambridge, Mass., 1639. Printing in colors was first introduced in 1626.

Pyramids first erected about 2170 B.C.

Quicksilver first used for refining silver ore in 1540.

Railroad. The first passenger railroad was opened in England Sept. 27, 1825; the first in America, Baltimore and Ohio, 1828, although freight was moved by rail at the granite quarries of Quincy, Mass., as early as 1826. The first steam railroad was operated in the United States in 1830, from Albany to Schenectady—16 miles.

Reformation in Germany, 1517; in England, 1532.

Republican Party. The first convention was held at Pittsburgh, Feb. 22, 1856.

Resumption of Specie Payments in the United States—Act approved 1875; took effect Jan. 1, 1879.

Ribbon Looms. It has been asserted that these looms were first known to the Swiss, but others claim their invention for a German in the town of Dantzic in the 16th century.

Ruling-Machines invented by a Dutchman in London in 1792.

Saddles. Pliny informs us that one, Pelethronius, was the first to introduce a piece of leather fastened to the back of a horse for the accommodation of its rider. For a long time these cloths and pieces of leather were regarded as unmanly, and were, therefore, regarded by soldiers with great scorn. The old German races despised the Roman cavalry for riding on such effeminate contrivances. Saddles of the kind now used appear to have been in use in 385. Side-saddles first used in 1380. Previous to their introduction women always rode astride.

Sailcloth first made in England in 1590.

Salting Herrings after the Dutch method first used in 1416.

Saltpeter first manufactured in England, in 1625.

Saws. The inventor of the saw is said, by the old Greek writers, to be Talus or Perdox. Pliny ascribes the invention to Dœdalus, but Hardouin affirms that the passage in which he does so refers to Talus, and not to Dœdalus. Talus was the son of a sister of Dœdalus, and the invention is said to be due to his using the jawbone of a snake to cut through a piece of wood. His master grew jealous of the honor Talus won by this invention, and caused him to be privately put to death.

Sedan Chairs introduced into England in 1734.

Sewing-Machine first patented in England, in 1755. The first complete machine was constructed by an American, Elias Howe, in 1846.

Sextant invented by Tycho Brahe, at Augsburg, in 1590.

Shay's Rebellion, in Massachusetts, 1786–87.

Sleeping-Cars were first used in 1858. Pullman's patent dates from 1864.

Soap first made in London and Bristol in 1524. The first express mention of soap appears in Pliny and Galen. The former speaks of it as an invention of the Gauls.

Speaking-Trumpets invented by Kircher, a Jesuit, in 1652.

Spinning-Wheel invented at Brunswick, 1530.

Spectacles invented by Spina, a monk, of Pisa, in 1299.

Stamp Act enacted March 22, 1765; repealed March 19, 1766.

Statutes of the United States first revised and codified in 1873.

Steam. The steam engine boiler was discovered by the Marquis of Worcester, in 1663. Newcommen's engine was patented in 1705, and the invention was perfected by James Watt, in 1773. The high pressure engine was invented by an American, Oliver Evans, in 1779. The first steam vessel of which there is any record was that of Papin (France), in 1707. Then follow those of Jonathan Hulls (England), 1736; William Henry (Conestoga river, Pa.), 1763; James Rumsey (Md.), 1786; John Fitch (Delaware river), same year. In 1806 Robert Fulton constructed the Clermont, which plied regularly between New York and Albany, at a speed of five miles per hour. The first steamer crossing the Atlantic made the voyage from Savannah to Liverpool in twenty-five days, A.D. 1819.

Steel. The invention of steel is of very great antiquity. The process of hardening iron is described in the Old Testament (Isaiah xliv, 12). The helmet of Hercules, described in Hesiod, appears to have been of steel. Homer refers to the process of hardening steel by immersing it, while red hot, in cold water.

Stereotype Printing invented by William Gid, a goldsmith, of Edinburgh, in 1735.

Stirrups, according to a statement made by the Emperor Mauritius, were first used in the 6th century. Hippocrates and Galen speak of a disease which, in their time, was occasioned by long and frequent riding, because the legs hung down without any support.

Sugar is first mentioned in 625 by Paul Eginetta, a physician. It came originally from China and the East; was produced in Sicily in 1148, in Madeira in 1419, in the Canary Islands in 1503, and in the West Indies by the Portuguese and Spaniards in 1510. In 1641 it was cultivated at Barbadoes. Sugar-refining was first carried out by a Venetian in 1503, and this process was adopted in England in 1569. Sugar cane was first cultivated in the United States in 1751, near New Orleans, the first sugar mill being constructed in 1758.

Sunday Schools were first established by Robert Raikes, Gloucester, England, in 1781.

Sun-dials invented 558 B.C. The first in Rome, 308 B.C., was that erected by Papirius Cursor, when time was divided into hours.

Tanning Leather. A new and more expeditious method than that previously in use was invented in 1795.

Tax. The first tax levied on the people was by Solon, 540 B.C.

Tea first known in Europe in 1610, being brought from India by the Dutch.

Telegraphs (mechanical) invented in 1687. First used by the French in 1794, and by the English in 1796. The first electric telegraph was operated from Paddington to Drayton, England, in 1835, the same year in which Morse's telegraph was invented. The first telegraph line in operation in America was between Baltimore and Washington in 1844. The first submarine cable was laid in 1851, between Dover and Calais, and the first Atlantic cable was operated in 1858.

Telephone. A. Graham Bell first presented a speaking telephone at the Centennial Exposition, Philadelphia, in 1876.

Telescopes. The first reflecting telescope made on the principle discovered by Sir Isaac Newton in 1692.

Thread first made at Paisley in 1722.

Thermometers first invented by Drebel, a Dutchman, in 1620; improved by Reaumur in 1730, and by Fahrenheit in 1749.

Tobacco was first introduced into England, from Virginia, in 1583.

Union of England and Scotland, 1707; Great Britain and Ireland, 1801.

Vaccination. See *Inoculation*.

Ventilators first introduced by the Rev. Dr. Hales in 1740.

Violins of the modern kind invented about 1477. Introduced into England by Charles II.

Wall-papers first used in Spain and Holland in 1555. Flock or velvet wall-papers were first used in 1620.

War Ships. In 1814 Sir Robert Seppings introduced various most important improvements for the construction of war ships. The lower parts of the frames of ships of war were then, for the first time, filled in, a system of diagonal trussing was introduced, the stern was altered in form, so that it no longer remained open to the fire of an enemy, and the upper decks were enlarged. Sir W. Symonds altered them so as to decrease the quantity of ballast required in 1832. In the International Exhibition of 1851 various improvements in this direction were shown, but great iron-cased ships were not then thought of. In July, 1854, the first of a new class of screw, gun vessels was launched for use during the Russian war. To operate with these, vessels of iron were constructed to bombard the fortresses in the Baltic. The first French iron-cased ship was a frigate called the "Gloire," and this was quickly followed by the first English ship of that kind, the "Warrior." Since then vessels of this kind have been subject to a variety of alterations and experiments tending to improve both their strength and their sailing qualities. The first battle between iron ships of war occurred in the war for the Union, the Merrimac and Monitor being the contestants.

Watches were invented at Nuremberg in 1477, and were first introduced into England from Germany in 1577.

Water Mills for grinding corn are said to have been invented by Belisarius when Rome was besieged by the Goths in 555. Pliny, however, mentions wheels turned by water.

Weather-Cocks. The earliest mention of a weather-cock is that made by Vitruvius, concerning that on the tower built at Athens by Andronicus Cyrrhestes.

Wild-Fire invented by a Greek in 663.

Wilmot Proviso, to restrict slavery, offered in the House of Representatives, Aug. 8, 1846, by David Wilmot, of Pa.

Wire invented at Nuremberg in 1351.

Wire-Drawing. The first record we have of this art is probably that contained in Holy Writ, where we are told that gold was beaten and cut to threads, so that it could be interwoven in cloth. The present mode of forming metallic threads, that known as wire-drawing, was first known in the 14th century.

Woolen Cloth. Although the making of woolen cloth is one of the most ancient arts, its manufacture was not known in France until 1646, when it was made at Sedan. It was first made in England in 1331, but was not dyed or dressed until 1667.

Yellowstone National Park established by Act of Congress, Feb. 28, 1871.

SCIENTIFIC DEPARTMENT.

A Simple Explanation of all the Sciences.

WE are all children of one Father, and His works it should be our delight to study. As the child, standing by its parent's knee, asks explanations alike of the simplest phenomena and of the most profound problems, so should man, turning to Nature, the living, visible oracle of his Creator, continually ask for knowledge.

In scientific language, Nature is defined as "the united totality of all that the senses can perceive;" in the language of theology, it "embraces everything that cannot be made by man," hence is synonymous with "God's creation."

In Nature there is no such thing as chance. Every effect has its cause, as Nature herself is but a name for an effect whose cause is God. When Newton observed an apple fall to the ground he asked the cause, and in answer to his inquiry came one of the grandest discoveries of science—a discovery which let in a flood of light upon the human mind, and led the way to the true knowledge of many things theretofore shrouded in error or mystery. Montgolfier first conceived the idea of air-balloons while watching fogs floating in the atmosphere, and all the wonderful discoveries of science may thus be traced to simple phenomena, carefully pondered and diligently studied in all their bearings as to cause and effect.

"Nature," says Whipple, "does not capriciously scatter her secrets as golden gifts to lazy pets and luxurious darlings, but imposes tasks when she presents opportunities, and uplifts him whom she would inform. The apple that she drops at the feet of Newton is but a coy invitation to follow her to the stars." The greatest philosophers have been those who have clung to the demonstrative sciences, and have held that a simple truth, well ascertained, is greater than the most ingenious theory founded upon questionable premises. The discoveries of Newton have borne the searching test of time because he snatched at nothing, leaped over no chasm to establish a favorite dogma, but learned to read Nature correctly by regarding the merest trifles as well as the highest phenomena. Thus he discovered a letter in each atom, a word in each blade of grass, a sentence in each phenomenon, and in the volume thus composed he read the wisdom and the power of the Almighty. Every flower, every ray of light, every drop of

dew, each flake of snow, the lowering cloud, the bright sun, the pale moon, the azure of the heavens by day and the twinkling stars of night, all are eloquent of the great Hand that made them.

From the earliest ages man has sought to read the open leaves of the book of Nature, but even now, after centuries of research and discovery, he does not grasp it all, cause and effect being followed up step by step until the mind is lost in the search. One discovery only leads to another, and the scientist of twenty centuries hence will be compelled to acknowledge that one-half of the wonderful book is still a mystery. However, all may peruse its pages, and all will find pleasure and profit in observing what is daily going on around them in earth, sea and sky. It is, indeed, only by a study of the material world that discoveries are accomplished. Let an attentive observer watch a ray of light passing from the air into the water, and he will see it deviate from the straight line by refraction. Let him seek the origin of a sound, and he will discover that it results from a shock or a vibration. This is physical science in its infancy.

In the pages following it is purposed to present in brief and entertaining form much useful as well as practical scientific knowledge. It has been sought to convey to the mind of the uninitiated, in as simple and practical a way as possible, a general idea of the various branches of science, as well as to state scientific facts briefly and in proper consecutive order, in such a manner that the advanced student may freshen his memory and revive his interest. Technical terms have been avoided as much as possible, and where they are used of necessity the context will furnish ample explanation.

When a person who is a stranger seeks to be directed to some point in a large and poorly laid-out city, whose streets, courts and places start from everywhere and end nowhere, crossing each other in a perverse and confusing manner, it were worse than useless to attempt to give him all the directions at once. The better way would be to point out to him the general direction, and then let him inquire as he progresses on the journey. In this connection it may be said that there is nothing so conducive to loss of time as short cuts to those who are not familiar with them. They generally verify the axiom that "Haste makes waste." With these introductory remarks we will take the reader to the broad fields of Science, and point out to him the general direction of the respective paths, noting in our way the most prominent turns, and if our readers desire more specific information we will refer them to the writings of those great men who have devoted their lives to the solution of Nature's problems, and have enabled us to give the reason for many things which, but for their genius and unremitting labors, would still be shrouded by the veil of ignorance.

Among the various works that have aided in the familiar exposition of science presented in this work may be mentioned the following: "Les Récréations Scientifiques," by Gaston Tissandier; "Astronomy," in the series of *New Works on Physics* by J. A. Gillet and W. J. Rolfe; "Physik und Meteorologie," by Dr. E. Lommel; "The Teacher's Examiner," by A. H. Thompson; "Guide to Familiar Science," by Rev. E. C. Brewer; "Lockyer's Solar Physics," Newcomb's "Popular Astronomy," etc., etc. We desire in an especial manner to thank Professors Rolfe and Gillet for the use of a number of beautiful and accurate astronomical illustrations from their excellent work.

NATURAL PHILOSOPHY

PHYSICS AND CHEMISTRY.
HYDROSTATICS AND HYDRAULICS.
OPTICS AND ACOUSTICS.
MAGNETISM AND ELECTRICITY.

THE FORCES OF NATURE, AND THE LAWS WHICH GOVERN THEM.
THE ELEMENTS OF NATURAL SCIENCE.

NATURE is revealed to us by *objects* and by *phenomena*. An *object* is a thing which occupies space and which is susceptible to feeling and to sight. The heavenly bodies may also be classed as objects, although we cannot touch them. *Phenomena* include those results which are perceptible by only one sense, as thunder. Light and sound may also be classed as phenomena. A stone is a natural object. We take it up, open our fingers, and it falls. The *motion* of that object is a phenomenon. We know it falls because we see it fall, and it possesses what we term *weight;* but we cannot tell *why* it possesses weight. A cause of a phenomenon being independent of human will is called a *force*, and the stone falls by the force of *gravitation*, or that natural law which compels every material object to approach every other material object. A single force may produce a great number of phenomena.

Nature being revealed to us by objects, and by means of phenomena, we have two branches of science extending from such roots, namely, NATURAL HISTORY, the Science of Objects; and NATURAL PHILOSOPHY, the Science of Phenomena.

Both of these branches have been subdivided thus:

- **Natural History.**
  - Zoölogy, referring to Animals. } Biology.
  - Botany, referring to Plants. }
  - Mineralogy, } referring to Minerals, etc.
  - Geology, }
- **Natural Philosophy.**
  - Physics. Phenomena without essential change of the objects.
  - Chemistry. Phenomena with change of the objects.
  - Physiology. Phenomena of animated objects.

The two great divisions comprehend, in their extended senses, all that is known respecting the material world.

We have spoken of *objects*. Objects occupy *space*. What is space? Space is magnitude which can be conceived as extending in three directions—*length*, *breadth* and *depth*. MATTER occupies portions of space, which is infinite. Matter, when finite, is termed a body or object. A *molecule* is the smallest portion of a body which we can conceive of as retaining its identity. An *atom* is a division of a molecule.

Suppose we take a quantity of water and conceive it to be divided until we reach a limit. The last particle which we could call water would be a molecule. Now let a current of electricity be passed through a quantity of water, and it is separated into two gases, essentially different from each other, and different from water. A given quantity of water will produce a certain quantity of gas, the proportion in volume of the two kinds being as 1 to 2. If one pint, say, of water produces one volume of one gas, and two of the other, one-half pint would produce one-half the amount of one gas and one-half the amount of the other, and so on down until we have made the ultimate division, which, for convenience, we call a *molecule*. Then we can truly say that the molecule is composed of *two* parts of one gas and *one* part of the other, and for convenience we call these parts of the molecules, *atoms*.

Physics deals only with masses and molecules. Chemistry deals with atoms. When we tear a piece of paper in pieces, or grind it to a pulp, we separate molecules and have effected a *physical change* only. When we burn the paper in the fire we separate atoms and have effected a *chemical change*. In the first case we have effected a change of form, but the matter is identically the same. In the second case, the gases and ashes produced by the burning are totally different, and the paper has lost its identity.

The sounding of a bell and the falling of a stone are *physical phenomena*, for the object which causes the sound or the fall undergoes no change. Heat is set free when coal burns, and this disengagement of heat is a physical phenomenon; but the change during combustion which coal undergoes is a *chemical phenomenon*.

The General Properties of Matter

Are *magnitude*, *impenetrability*, *inertia*, *divisibility*, *porosity*, *elasticity*, *compressibility*, *expansibility* and *indestructibility*.

Magnitude is the property of occupying space. *Size* is the amount of space a body fills. Every body has three dimensions—length, breadth and thickness; and, in order to measure these, some standard of measurement is required.

Impenetrability is the property of so occupying space as to exclude all other bodies; for no two bodies can occupy the same space at the same time. We sometimes speak of one substance penetrating another. Thus, a needle penetrates cloth, a nail penetrates wood, etc.; but on a moment's reflection it will be plainly seen that they merely push aside the fibers of the cloth or wood, and so press them closer together.

Inertia is the property of passiveness. Matter has no power of putting itself in motion when at rest. A body will never change its place unless moved, and if once started will move forever unless stopped. It is difficult to start a wagon because we have to overcome its inertia, which tends to keep it at rest. When the wagon is in motion it requires as great an exertion to stop it, since then we have again to overcome its inertia, which tends to keep it moving.

Inertia causes the danger of jumping from cars when in motion. The body has the speed of the train, while the motion of the feet is stopped by contact with the ground. One should jump as nearly as he can in the direction in which the train is moving, and with his muscles strained, so as to break into a run the instant his feet touch the ground. Then with all his strength he can gradually overcome the inertia of his body, and after a few feet can turn as he pleases.

Divisibility is that property of a body which allows it to be separated into parts. It would be impossible to find a particle so small that it still could not be made smaller. Practically speaking, there is no limit to the divisibility of matter; but philosophers hold that there is in theory. When we attempt to show how far matter can be divided, the brain refuses to grasp the infinity. A pin's head is a small object, but it is gigantic compared to some animals, of which millions would occupy a space no larger than the head of a pin. These tiny animals must have organs and veins, and those veins must be full of blood globules. Prof. Tyndall says a drop of blood contains three millions of red globules. But there is something even more astonishing than this. It is stated that there are more animals in the milt of a single codfish than there are men in the world; and that *one grain of sand is larger than four millions of these animals*, each of which must be possessed of life germs of an equal amount, which would grow up as it grew to maturity. This carries us back again, and

> "Imagination's utmost stretch
> In wonder dies away."

Porosity is the property of having pores. By this is meant not only such pores as are familiar to all, and to which we refer when, in common language, we speak of a porous body, as bread, wood, unglazed pottery, a sponge, etc., but a finer kind, as invisible to the eye as the atoms themselves. These pores are caused by the fact that the molecules of which a body is composed are not in actual contact, but are separated by extremely minute spaces.

Elasticity is classed both among the general and the specific properties of matter. It is thought that all bodies have elasticity, yet some have it in such a degree that it serves to distinguish them from other bodies.

Compressibility is that property of matter by virtue of which it may be made to occupy less space. It is a result of porosity, the molecules being pressed closer together.

Expansibility is the opposite of compressibility.

Indestructibility is the property which renders matter incapable of being destroyed. No particle of matter can be annihilated, except by God, its creator. We may change its form, but we cannot deprive it of existence.

The Specific Properties of Matter

Are those which are found only in particular kinds of matter. The most important are *ductility*, *malleability*, *tenacity*, *elasticity*, *hardness* and *brittleness*.

A *ductile body* is one which can be drawn into wire. Some of the most ductile are gold, silver, and platinum.

A *malleable body* is one which can be hammered or rolled into sheets. Gold is the most malleable of all metals, and can be beaten into sheets $\frac{1}{282000}$ of an inch in thickness. Copper is so malleable that it is said that a workman, with his hammer, can beat out a kettle from a solid block of the metal.

A *tenacious body* is one which cannot be easily pulled apart. Iron is the most tenacious of the metals.

There are three kinds of *elasticity*—elasticity of compression, elasticity of expansion, and elasticity of torsion.

Solids—Liquids—Gases.

Matter is present in Nature in three conditions. We find it as a *solid*, a *liquid*, and a *gas*. To test the actual existence of matter in one or other of these forms our senses help us. We can touch a solid, or taste it and see it. But touch is the test.

A *solid* is a body whose molecules cohere so that their relative positions cannot be changed without the application of considerable force. A solid will retain any shape given it.

A *liquid* is a body whose molecules cohere so slightly that their relative positions may be changed on the application of slight force. A liquid will assume the form of the vessel containing it, and the free surface will always be horizontal, each molecule seeking its lowest level by the force of gravity.

A *gas* is a body whose molecules separate almost indefinitely from each other. Essentially there is no difference between a gas and a vapor. The term gas is generally applied to those bodies which are ordinarily in a gaseous state, and the term vapor to that which is formed by heating a liquid or solid. Steam is the vapor of water, but it is a gas as much as oxygen or hydrogen.

The Forces of Nature.

Force is a cause—the cause of motion or of rest. It requires force to set an object in motion, and this object would never stop unless some other force or forces prevented its movement

beyond a certain point. Force, therefore, is the cause of a change of "state" in matter. The forces of Nature are three in number—*gravity*, *cohesion*, and *affinity*, or chemical attraction.

Gravity.

Gravity, or *gravitation*, is the mutual attraction between different portions of matter acting at all distances—the force of attraction being, of course, in proportion to the respective mass of the bodies. The greatest body, so far as our purposes are concerned, is the earth, and the attraction of the earth is gravity, or what we call weight. If we jump from a chair we shall come to the floor, and if there were nothing between us and the actual ground, sufficient to sustain the force of the attracting power of the earth, we should fall to the earth's surface. In a teacup the spoon will attract air-bubbles, and large air-bubbles will attract small ones, till we find a small mass of bubbles formed in the center of the cup of tea. Divide this bubble, and the component parts will rush to the sides of the cup.

Two balls of equal magnitude will attract each other with equal force, and will meet, if not opposed, at a point half-way between the two. But they do not meet, because the attraction of the earth is greater than the attraction they relatively and collectively exercise toward each other. If the size of the balls be different, the attraction of the greater will be more evident.

FALLING BODIES.

Gravity is the cause of the phenomena of *falling bodies*, because every object on the surface of the earth is very much smaller than the earth itself, and, therefore, all bodies fall toward the center of the earth. On the earth a body, if let fall, will pass through a space of sixteen feet in the first second; and as the attraction of the earth still continues and is exercised on a body already in rapid motion, this rate of progress must be proportionately increased. The space a falling body passes through has been calculated, and found to *increase in proportion to the square of the time it takes to fall.* For instance, suppose you drop a stone from the top of a cliff to the beach, and it occupies two seconds in falling. If you multiply 2 by 2 and the result by 16, you will find how high the cliff is—64 feet. The depth of a well can be ascertained in the same way, leaving out the effect of air resistance.

But if we go up into the air, the force of gravity will be diminished. The attraction will be less, because we are more distant from the center of the earth. This decrease is scarcely, if at all, perceptible, even on very high mountains, because their size is not great in comparison with the mass of the earth's surface. The rule for this is *that gravity decreases in proportion to the square of the distance.* So that if at a certain distance from the earth's surface the force of attraction be 1, if the distance be *doubled* the attraction will be only *one-quarter* as much as before—not one-half.

Gravity has exactly the same influence upon *all* bodies, and the force of the attraction is in proportion to the mass. All bodies of equal mass will fall in the same time in a given distance. Two coins, or a coin and a feather, *in vacuo*, will fall together. But in the air the feather will remain far behind the coin, because nearly all the atoms of the former are resisted by the air, while in the coin only some particles are exposed to the resistance, the *density* of the latter preventing the air from reaching more than a few atoms, comparatively speaking.

Drops of water falling from the clouds do not strike with a force proportional to the laws of falling bodies. This is because they are so small that the resistance of the air nearly destroys their velocity. If it were not for this wise provision, a shower of raindrops would be as fatal as one of minie bullets.

The weight of a body varies on different portions of the earth's surface. It will be least at the equator: (1) because, on account of the bulging form of our globe, a body is there pushed out from the mass of the earth, and so removed from the center of attraction; (2) because the centrifugal force is there the strongest. It will be greatest at the poles: (1) because, on account of the flattening of the earth, a body is there brought nearer its mass and the center of attraction; (2) because there is no centrifugal force at those points. At the center of the earth the weight of a body is nothing, because the attraction is there equal in every direction.

THE CENTER OF GRAVITY.

The *center of gravity* is that point on which, if supported, a body will balance itself. In our daily actions are found many physiological applications of the center of gravity. When we wish to rise from the chair, we bend forward, in order to bring the center of gravity over our feet, our muscles not having sufficient strength to raise our bodies without this aid. And when we walk, we lean forward, so as to bring the center of gravity as far in front as possible.

SPECIFIC GRAVITY.

Specific gravity is the weight of a substance compared with the weight of the same bulk of another substance. It is really a method of finding the density of a body. Water is taken as the standard for solids and liquids; and air for gases.

THE PENDULUM.

The *pendulum* consists of a weight so suspended as to swing freely. Its movements to and fro are termed vibrations or oscillations. The path through which it passes is called the arc, and the extent to which it goes in either direction is styled its amplitude.

As "heat expands and cold contracts," a pendulum increases in length in summer and shortens in winter. Therefore, a clock loses time in summer and gains in winter.

CENTRIFUGAL AND CENTRIPETAL FORCE.

Centrifugal force, which means "flying from the center," is the force which causes an object to describe a circle with uniform velocity, and fly away from the center. The force that counteracts it is called the *centripetal force.*

To represent its action, an ordinary glass tumbler may be used. The tumbler should be placed on a round piece of cardboard, held firmly in place by cords. Some water is then poured into the glass, and it can be swung to and fro and round, without the water being spilt, even when the glass is upside down.

Cohesion.

Cohesion is the attraction of particles of bodies to each other at very small distances apart. Cohesion has received various names in order to express its various degrees. For instance, we say a body is tough or brittle, or soft or hard, according to the degrees of cohesion the particles exercise. We know if we break a glass we destroy the cohesion; the particles cannot be reunited. Most liquid particles can be united, but not all. Oil will not mix with water.

The force of cohesion depends upon heat. Heat expands everything, and the cohesion diminishes as temperature increases.

There are some objects or substances upon the earth the particles of which adhere much more closely than others, and can only be separated with very great difficulty. These are termed *solids*. There are other substances whose particles can easily be divided, or their position altered. These are called *fluids*. A third class seem to have little or no cohesion at all. These are termed *gases*.

ADHESION.

Adhesion is also a form of attraction, and is cohesion existing on the surfaces of two bodies. When a fluid adheres to a solid we say the solid is wet. We turn this natural adhesion to our own purposes in many ways—we whitewash our walls, and paint our houses; we paste our papers together, etc.

On the other hand, many fluids will not adhere. Oil and water have already been instanced. Mercury will not stick to a glass tube, nor will the oiled glass tube retain any water. We can show the attraction and repulsion in the following manner: Let one glass tube be dipped into water and another into mercury; you will see that the water will ascend slightly at the side, owing to the attraction of the glass, while the mercury will be higher in the center, for it possesses no attraction for the glass. If small, or what are termed capillary (or hair) tubes, be used, the water will rise up in the one tube, while in the other the mercury will remain lower than the mercury outside the tube.

The law of adhesion is what necessitates the spout on a pitcher. The water would run down the side of the pitcher by the force of adhesion, but the spout throws it into the hands of gravitation before adhesion can catch it.

Affinity, or Chemical Attraction.

Affinity, or *chemical attraction*, is the force by which two different bodies unite to form a new and different body from either. This force will be fully considered in CHEMISTRY.

It is needless for us to dwell upon the uses of these forces of Nature. Gravity and cohesion being left out of our world, we can imagine the result. The earth and sun and planets would wander aimlessly about; we should float away into space, and everything would fall to pieces, while our bodies would dissolve into their component parts.

Motion.

Motion is a change of place. Absolute motion is a change without reference to any other object. Relative motion is a change with reference to some other object.

Rest is either absolute or relative. *Velocity* is the rate at which a body moves. *Force*, as has been said, is that which tends to produce or destroy motion.

The principal *resistances to motion* are friction, resistance of the air, and gravity.

Friction is the resistance caused by the surface over which a body moves. If the surface of a body could be made perfectly smooth, there would be no friction; but in spite of the most exact and complete polish, the microscope reveals minute projections and cavities.

Momentum is the quantity of motion in a body.

Two laws of motion: 1. A body once set in motion tends to move forever in a straight line. 2. A force acting upon a body, in motion or at rest, produces the same effect, whether it acts alone or with other forces.

Circular motion is a variety of compound motion produced by two forces, called the centrifugal and the centripetal. The former tends to drive a body from the center; the latter tends to draw a body toward the center.

Reflected motion is produced by the reaction of any surface against which an elastic body is thrown.

Curved motion.—Whenever two or more instantaneous forces act upon a body, the resultant is a straight line. When one is instantaneous and the other continuous, it is a curved line. And when a body is thrown into the air, unless it be in a vertical line, it is acted upon by the instantaneous force of projection and the continuous force of gravity, and so passes through a line which curves toward the earth.

Machines

Enable us to apply and direct the forces of nature. The *lever* and the *inclined plane*, and their modifications, the *screw*, the *wedge*, the *wheel and axle* and the *pulley*, constitute the elementary forms of machinery.

Power or energy, multiplied by the distance through which it moves, equals the weight, load or resistance multiplied by the distance. The fundamental law is, that what is gained in power is lost in time or distance. Thus, two pounds of power moving through ten feet equals twenty pounds moving through one foot.

A *lever* is an inflexible bar capable of turning on a fixed point. The force used is called the *power*, the object to be moved, the *weight*, and the fixed point or pivot, the *fulcrum*. There are three kinds of levers, as follows: 1. Power at one end, weight at the other, fulcrum between them. 2. Power at one end, fulcrum at the other, and weight between them. 3. Fulcrum at one end, weight at the other, and power between them.

The *compound lever* consists of several levers connected together in such a way that the short arm of one acts upon the long arm of the next, and so on.

The *wheel and axle* is a modification of the lever in which the center of the axis of the wheel is the fulcrum, the distance from the rim of the wheel to the axis, or the length of the crank, the long arm, and the distance from the circumference of the axis to its center, its short arm.

The *pulley* is a modification of the lever in which the distances

from the axis to the circumference represent equal arms of the lever. No advantage is gained in a fixed pulley except change of direction. By means of a number of movable pulleys the power distance is increased, the cord having to pass through a greater distance to gain greater power.

The *inclined plane* is a smooth, hard surface inclined so as to make an angle with direction of the force to be overcome. Comparing it with the lever, the length corresponds to the long arm and the height to the short arm.

The *wedge* is simply a movable inclined plane, its power depending upon friction as well as upon its form.

The *screw* is an inclined plane wound around a cylinder.

Perpetual Motion.

Nothing can be more utterly impracticable than to make a machine capable of perpetual motion. No machine can produce power; it can only direct that which is applied to it. We know that in all machinery there is friction; hence, this must ultimately exhaust the power and bring the motion to rest. These principles show the uselessness of all such attempts.

HYDROSTATICS AND HYDRAULICS.

Hydrostatics treats of liquids at rest. Its principles apply to all liquids, but water, on account of its abundance, is taken as the type of the class, and all experiments are based upon it.

Liquids transmit pressure in all directions. *Pascal's law* is as follows: Pressure exerted anywhere upon a mass of liquid is transmitted, undiminished, in all directions, and acts with the same force upon equal surfaces, and in a direction at right angles to those surfaces. A necessary inference from this law is that surfaces of vessels sustain a pressure proportional to their area.

A practical application of Pascal's law is the *hydrostatic press*, more generally called the *hydraulic press*. This is a very powerful machine, by means of which a pressure of several hundred tons may be obtained.

Artesian wells are so named because they have been used for a long time in the province of Artois, in France; they were, however, employed by the Chinese, from early ages, for the purpose of procuring gas and salt water. These are on the principle above stated, that liquids press equally in all directions—that water "always seeks its level." By boring through strata of rocks, or earth impervious to water, and striking a basin of water which has descended from a greater height, through a porous strata, a well is formed which throws water to almost the height of the fountain head, being retarded only by friction and resistance of the air.

The surface of standing water is said to be level; this is true for small sheets of water, but for larger bodies an allowance must be made for the circular figure of the earth.

The *spirit level* is an instrument used by builders for leveling; it consists of a slightly curved glass tube, so nearly full of alcohol that it holds only a bubble of air. When the level is horizontal, the bubble remains at the center of the tube.

Modern engineers carry water across a river by means of pipes laid under the bed of the river, knowing that the water will rise on the opposite side to its level. The ancients appear to have understood this principle, but were unable to construct pipes capable of resisting the pressure.

Hydraulics treats of liquids in motion. In this, as in hydrostatics, water is taken as the type. In theory, its principles are those of falling bodies, but they are so modified by various causes that in practice they cannot be relied upon, except as verified by experiment. The discrepancy arises from changes of temperature, which vary the fluidity of the liquid, from friction, the shape of the orifice, etc.

A fall of only three inches per mile is sufficient to give motion to water, and produce a velocity of as many miles per hour. The Ganges descends but 800 feet in 1,800 miles; its waters require a month to move down this long inclined plane. A fall of three feet per mile will make a mountain torrent.

Barker's Mill consists of an upright cylinder with horizontal arms, and with apertures in the opposite sides, the cylinder being so arranged as to turn easily. When water is poured into the cylinder, the pressure being equal in all directions, it would remain at rest, did it not flow out at the orifices, thus relieving the pressure on the one side, causing the arm to move in the opposite direction and the cylinder to revolve. The *Turbine water-wheel* is a practical application of this principle.

PNEUMATICS

Treats of the general properties and the pressure of gases.

Gases have weight, compressibility, expansibility and elasticity, and the principles of transmission of pressure, specific gravity and buoyancy of liquids apply to them as well. The pressure of the air has been several times referred to. The force of air can very soon be shown as acting with considerable pressure on an egg in a glass. By blowing in a small wine glass, containing a hard-boiled egg, it is possible to cause the egg to jump out of the glass, and with practice and strength of lungs it is not impossible to make it pass from one glass to another. The force of heated air ascending can be ascertained by cutting a card into a spiral and holding it above a lamp or a stove. The spiral, if lightly poised, will revolve rapidly.

The *barometer* is an instrument for measuring the pressure of air, and consists essentially of an apparatus, first used by Torricelli, who took a glass tube about a yard in length, closed at one end, and filled it with mercury. Placing his thumb over the closed end, he immersed it in a vessel of mercury. Removing his thumb, the mercury sank until it stood at the height of 30 inches. The space above the mercury was as nearly a complete vacuum as has ever been attained. By this experiment he proved that the pressure of the atmosphere is equal to the weight of a column of liquid which it will sustain.

The barometer is used to indicate the weather, and to measure the height of mountains.

Three opposing forces act on the air, viz.: gravity, which binds it to the earth, and the centrifugal and the repellant (heat) forces, which tend to hurl it off into space. Under the action of the latter forces, the atmosphere, like a great bent spring, is ready to bound away at the first opportunity; but the attraction of the earth holds it firmly in its place.

The rise and fall of the barometric column shows that the air is lighter in foul and heavier in fair weather. In fair weather, the moisture of the air is an invisible vapor, mingled with it, and adding to its pressure, while in foul weather the vapor is separated in the form of clouds.

The *common pump* is an application of air pressure. The piston, or sucker, being raised, the water is forced up the tube by the pressure of the air on the surface of the water in the well, there being no resistance in the tube, for the piston lifts out the air. As the piston descends, the valve in it opens upward and allows the water to pass through above the valve, which, closing as it rises again, the water is lifted out and more is forced into the tube below. Owing to the necessary imperfection of the parts, water cannot be raised by atmospheric pressure more than about 27 feet.

The *air-pump* is a machine for removing the air from within a vessel. It consists of a cylinder supplied with a valve opening inward and one opening outward, and a piston fitting accurately. When the piston is raised, the air rushes into the cylinder through the first valve to fill the vacuum. As the cylinder descends, the air closes the first valve and opens the second, and is driven out, every stroke of the piston thus removing a portion of air. The escape valve may be in the side of the cylinder or in the piston itself.

The *siphon* consists of a tube, bent in the shape of a letter U, with unequal arms. Fill the siphon with water, closing both ends with the fingers. Insert the short arm in a vessel of water, with the long arm on the outside, with its end lower than the end of the short arm. The column of water in the long arm will run out by its own weight, and the tendency would be to produce a vacuum in the bend of the tube, but the water is forced up by the pressure of air through the short arm, and thus the stream is kept up so long as the outside arm is lower at its orifice than the orifice of the inside arm. The flow may be started by exhausting the air from the long arm by suction, and then it will not be necessary to fill the siphon with water.

ACOUSTICS.

Acoustics treats of the doctrine of sound. The term *sound* is used in two senses—the subjective, that which has reference to our mind; and the objective, that which refers only to the objects around us.

In the subjective sense, sound is the sensation produced upon the organ of hearing by vibrations in matter. In this use of the word, there can be no sound where there is no ear to catch the vibrations.

In the objective sense, sound is those vibrations of matter capable of producing a sensation upon the organ of hearing. In this use of the word, there can be a sound in the absence of the ear. An object falls and the vibrations are produced, though there may be no organ of hearing to receive an impression from them.

The velocity of sound depends on the elasticity and density of the medium through which it passes. The higher the elasticity, the more promptly and rapidly the motion will be transmitted, since the elastic force acts like a bent spring between the molecules. The greater the density, the more molecules to be set in motion, and hence the slower the transmission.

Sound travels through the air (at the freezing point) at the rate of 1,090 feet per second. A rise in temperature diminishes the density of the air, and thus sound travels faster in warm and slower in cold air. Through water sound travels at the rate of 4,700 feet per second. Water is denser than air, and for that reason sound should travel in it much slower; but its elasticity, which is measured by the force required to compress it, is so much greater that the rate is quadrupled. Sound travels through solids faster than through air; and the velocity in iron is nearly ten times greater. Under ordinary circumstances, all sounds travel with the same velocity.

When a sound-wave strikes against the surface of another medium, a portion goes on while the rest is reflected. The law which governs reflected sound is that of reflected motion—*the angle of incidence is equal to that of reflection.*

The air at night is more homogeneous than by day; consequently, sounds are heard more clearly and farther than in the daytime.

If two sounds meet in exactly opposite phases, and the two forces are equal, they will balance each other, and silence will ensue. Thus, *a sound added to a sound will produce silence.* In the same way, *two motions may produce rest; two lights may cause darkness, and two heats may produce cold.*

The difference between noise and music is only that between irregular and regular vibrations. Whatever may be the cause which sets the air in motion, if the vibrations be uniform and rapid enough, the sound is musical. If the ticks of a watch could be made with sufficient rapidity, they would lose their individuality, and blend into a musical tone.

Wind instruments produce musical sounds by means of inclosed columns of air. Sound-waves run backward and forward through the tube, and act on the surrounding air like the vibrations of a cord.

The *Telephone* is an instrument which has, in a few years, come into almost general use, and which is beginning to rival the electric telegraph as a means of rapid communication. By means of it articulate speech or other sounds are reproduced at great distances. In the acoustic, or string telephone, it is only necessary to have a membrane which can be set in vibration by the impulses of the air made by the voice on an instrument, and a string or wire attached to it to carry the vibrations to a similar membrane at the other end. This second membrane gives back to the air the same kind of vibration received at the other end. In the electric telephone the vibrations of the membrane cause changes in the electric current, produced by a battery, these changes being capable of reproducing the same kind of vibrations in the membrane at the opposite end.

The *Microphone* is an instrument which, in its main features, consists of a carbon "pencil," so suspended that one end rests upon a carbon "die." The instrument, being connected with a telephone by the circuit wires, will reproduce faint sounds very distinctly. The upright carbon is thrown into vibrations by the impulse of the sound, which alternately lengthens and shortens it. This, by impairing or strengthening the connection of the

circuit, alternately lessens and strengthens the force of the current. Corresponding to these electric changes, the membrane of the telephone vibrates and gives out sound. It is so sensitive that the walking of a fly on the sounding-board may be distinctly heard at the telephone, and the ticking of a watch sounds like blows of a hammer.

The *Phonograph* is an instrument which registers the different vibrations produced by sound, and reproduces them in correspondence with this registration. It consists of a mouth-piece and vibrating membrane, the same as the telephone, with a needle attached to the center of the membrane, the vibrations of which cause the needle to make impressions on a strip of tin foil, rolled on a grooved revolving cylinder. By so adjusting the machine that the needle may retrace its path on the tin foil, the membrane is set in vibration again and the sounds are given back exactly as they were received. Articulate speech, as well as all other noises, is reproduced with wonderful distinctness.

With the *Photophone*, sounds may be heard at a distance by means of light. Changes are produced in the electric current by the light falling on a plate of "selenium." With this exception the principle is the same as in the ordinary telephone.

The *Audiphone* is an instrument to convey sound to the ear, to supplement it when partial or temporary deafness has occurred. The instrument has the appearance of a large, black fan, is made of vulcanized rubber, and consists of a long, flexible disc, supported by a handle. To the upper edge of the "fan" are attached cords, which pass through a clip on the handle. If the person who wishes to hear by means of the audiphone will hold the fan against the upper teeth—the convex side of the fan outward—he or she will hear distinctly, for the vibrations of sound are collected and strike upon the teeth and bones, and act upon the auditory nerves from within, precisely as the vibrations act from without through the auricle.

The *Topophone*, an apparatus for discovering the position of a sound, is based upon the well-known theory of sound-waves. It is claimed for this apparatus that it stands in the same relation to the sailor as his old and trusty friends the compass and sextant, as it will tell him whence a sound arises, and this in a fog is no mean advantage. The whole theory of the topophone, however, depends for its usefulness upon the same note being sounded by all horns and whistles. The note C treble, caused by about 260 vibrations per second, has been found most applicable, and if all whistles and fog-horns can by law be compelled to adjust themselves to this note, the topophone will prove a real and lasting benefit.

OPTICS

Is the science which treats of light and vision. *Light* is a vibratory motion, like sound and heat, transmitted through a medium called *ether*. This medium is a very elastic substance surrounding us, and constituting a kind of universal atmosphere, diffused throughout all space. It is so subtle that it fills the pores of all bodies, eludes all chemical tests, passes in through the glass receiver and remains even in the vacuum of an air-pump.

A *luminous* body is one that emits or sends forth light. A *non-luminous* body is one that reflects light, and is visible only in the presence of a luminous body. A *medium* is any substance through which light passes. A *transparent* body is one that offers so little obstruction to the passage of light that we can see objects through it. A *translucent* body is one that lets some light pass, but not enough to render objects visible through it. An opaque body is one that does not transmit light.

The three great laws governing light are: 1. Light passes off from a luminous body equally in every direction. 2. Light travels through a medium of uniform density in straight lines. 3. The intensity of light decreases as the square of the distance increases.

The velocity of light is about 185,000 miles per second. This is so great that, for all distances on the earth, it is practically instantaneous.

When a beam of light from a luminous body falls upon the surface of an opaque body a portion is *reflected* and a portion *absorbed*. When light passes from one medium to another of different density it is *refracted*, that is, bent out of its regular course.

Diffraction of light is caused by a beam of light passing along the edge of some opaque body. As the waves of ether strike against it, they put in motion another set of waves on the opposite side which interfere with the first system.

The *rainbow* is formed by the refraction and reflection of the sunbeam in drops of falling water. Halos, coronas, sundogs, circles about the moon, the gorgeous tinting at sunrise and sunset, are all produced by the refraction and reflection of the sun's rays when passing through the clouds in the upper regions of the atmosphere. The phenomenon familiarly known as the "sun's drawing water" consists merely of the long shadows of broken clouds.

The *mirage* is fully explained under the nead of *Physical Geography*.

If a sunbeam be passed through a prism the light is decomposed and appears as a band of seven colors, viz.: violet, indigo, blue, green, yellow, orange, red. These are called the colors of the solar spectrum.

A *lens* is a transparent body, generally of glass, having one or two curved surfaces. A *convex lens* converges the rays of light, or brings them to a focus at a point, varying in distance, according to the degree of convexity. A concave lens causes the rays of light to diverge. If the eye be placed at the point where the rays from an object are brought to a focus by a convex lens, the object will appear magnified, while the same object seen through a concave lens will appear diminished. A "burning glass" is a convex lens, converging the rays of the sun.

Rays which pass through a lens near the edge are brought to a focus sooner than those near the center; therefore, when an image is clear around the edge, it will be indistinct at the center, and *vice versa*. This wandering of the rays from the focus is termed *spherical aberration*.

Chromatic aberration is caused by the different refrangibility of the several colors which compose white light. The violet, being bent most, tends to come to a focus sooner than the red,

which is bent least. This causes the play of colors seen around the image produced by an ordinary glass. It is remedied by using a second lens of different dispersive power, which counteracts the effects of the first.

Microscopes are of two kinds—simple and compound. The former consists of a double convex lens; the latter contains at least two lenses.

Telescopes are of two kinds—reflecting and refracting. The former contains a large, metallic mirror, which reflects the rays of light to a focus; the latter, like the microscope, contains an object-lens which forms an image.

The *opera-glass* contains an object-glass and an eye-piece. The latter is a double concave lens. This increases the visual angle by diverging the rays of light, which would otherwise come to a focus beyond the eye-piece.

The *camera* used by photographers contains a double convex lens, which throws an inverted image of the object upon the ground glass screen.

The three kinds of mirrors are plane, concave and convex. The first has a flat surface; the second, one like the inside, and the third, one like the outside of a watch crystal. The general principle of mirrors is that *the image is always seen in the direction of the reflected ray as it enters the eye.*

HEAT

Is now known to be a series of vibrations, or vibratory motions, as sound vibrations, which we cannot hear nor see, but the effects of which are known to us as light and heat. In other words, heat is now believed to be the effect of the rapid motion of all the molecules of a body. If this motion be increased the body is said to be heated; if decreased, it is cooled. Cold is a merely relative term, indicating the absence of heat in a greater or less degree.

The sources of heat are the sun, moon and stars, mechanical and chemical action. The greater part of the heat of our globe comes from the sun, and only a very minute quantity from the other heavenly bodies. Great heat may be developed by mechanical action, as friction and concussion. Count Rumford caused water to boil by the friction of metals. A blacksmith can make a piece of iron red hot by hammering. The flint strikes fire from the steel, particles of the metal being torn off and heated to redness. Chemical action is seen in the combustion of fuel, the union of oxygen with carbon and hydrogen.

All bodies expand under the effects of heat, for by its addition the molecules are urged into swifter motion, and therefore pushed further apart, increasing the size of the body. Hence the law, "*Heat expands; cold contracts.*"

If heat be applied to a liquid, the temperature rises until the boiling point is reached, when it stops. The expansion, however, continues until the motion is so violent as to overcome the cohesive force and to throw off particles of the liquid. When we heat water, the bubbles which pass off first contain merely the air dissolved in the liquid; next bubbles of steam form on the bottom and sides of the vessel, and, rising a little distance, are crushed in by the cold water and condensed. In breaking they produce that peculiar sound known as "simmering," and ascend higher and higher as the temperature of the water rises, until at last they break at the surface, and the steam passes off into the air.

Any substance which increases the cohesive power of water elevates the boiling point, and for this reason salt water boils at a higher temperature than fresh water.

Evaporation is a slow formation of vapor, which takes place at all ordinary temperatures. It is hastened by an increase of surface and a gentle heat. This principle is made useful in the arts for separating a solid from the liquid which holds it in solution.

Vacuum pans are largely employed in condensing milk, in the manufacture of sugar, etc.; and are so arranged that the air above the liquid in the vessel may be exhausted, and then the evaporation takes place very rapidly, and at so low a temperature that all danger of burning is avoided.

Absorption and *reflection* are intimately connected with *radiation.* A good absorber is also a good radiator, but a good reflector can be neither. Snow is a good reflector but a poor absorber or radiator. Light colors absorb less and reflect more than dark colors. White is the best reflector, and black the best absorber and radiator.

On the Desert of Sahara, where "the soil is fire and the wind is flame," the dry air allows the heat to escape through it so readily that ice is sometimes formed at night. The dryness of the air at great elevations accounts, in part, for the coldness which is there felt so keenly.

The *thermometer* is an instrument to measure the temperature by means of the expansion of mercury. The principal scales used are: Fahrenheit's, in which the space between the two fixed points, boiling and freezing, is divided into 180 degrees; the Centigrade, in which this space is divided into 100 degrees; Reaumur's, in which it is divided into 80 degrees. Mercury freezes only at 39° Fahr. below zero, and consequently it is most generally used in thermometers. Alcohol is used only for very low temperatures.

Water changes from the liquid to the gaseous state, or boils, at the level of the sea, at a temperature of 212° F. As we ascend above this level the pressure of the atmosphere is less, and it boils at a lower degree.

The *steam engine* is a machine for using the elastic force of steam as a motive power. There are two classes of engines—the high-pressure and the low-pressure. In the former the steam, after being employed to do its work, is forced out into the air; in the latter it is condensed in a separate chamber by a spray of cold water. As the steam is condensed in the low-pressure engine a vacuum is formed behind the piston, while the piston of the high-pressure engine acts against the pressure of the air. The *governor* is an apparatus for regulating the supply of steam. When a machine is going too fast, the balls fly out by centrifugal force and shut off a portion of the steam; when too slowly, they fall back, and, opening the valve, let on the steam again. The *fly-wheel*, by its inertia, serves to render the movement of the machinery uniform.

MAGNETISM AND ELECTRICITY.

Magnetism is that branch of science which treats of the properties of the magnet. Certain specimens of iron ore have the property of attracting iron and some of its ores, and are called *natural magnets* or *loadstone.* When freely suspended they will point to the poles. An *artificial magnet* is a magnetized piece of steel, either straight or bent in the form of a horseshoe.

The production of magnetism by induction is a curious phenomenon. If a permanent magnet is brought near a handful of iron nails it will attract them to it, and as soon as a nail becomes attached to the magnet it becomes a magnet itself and attracts another nail, which in turn becomes a magnet and attracts another, and so on, the magnetic power of each new nail attracted becoming constantly less than that of the preceding one. It is not even necessary that the nail should absolutely touch the magnet in order to assume this magnetic power, for it will be transmitted through short spaces from one to the other. This power which a body acquires by being brought near a magnet is called *magnetic induction.* An important fact in this connection is that when a coil of iron wire is made to surround a permanent magnet it becomes magnetic itself by induction, and is capable of inducing magnetism in another bar of iron surrounded by it. This principle is made practical use of in the construction of the telephone and magnetic telegraph.

The greatest electric power of a magnet is at its ends, which are called *poles.* The end pointing to the north, when suspended, is the north or positive pole, the other being the south or negative. Like poles repel, and unlike poles attract each other.

The *compass* is a magnetic needle used by mariners, surveyors, etc. It is very delicately poised over a card, on which the "points of the compass" are marked. The needle does not often point directly north and south. The *"line of no variation,"* as it is called, runs in an irregular course through the United States from Cape Lookout, across Lake Erie to Hudson's Bay. East of this the variation is toward the west, and west of it it is toward the east. The earth itself is a great magnet, and this explains why the needle points north and south.

A *dipping needle* is one which is free to turn in a vertical plane. At the equator it is horizontal, but as it is carried toward the north it dips, or inclines toward the center of the earth. At a place near Hudson's Bay it stands vertical. This is called the north magnetic pole. It does not coincide with the geographical pole.

Electricity is that science which unfolds the phenomena and laws of the electric fluid. Electricity may be generated by means of friction, percussion, heat, chemical action, cleavage, and by magnets. The effects of electricity in its various forms are manifested as attraction, repulsion, light, heat, violent commotions and chemical decomposition.

The first method of producing electricity, discovered in the earlier ages, was by rubbing amber, and so the term electricity was derived from the Greek word *elektron*, signifying amber. It was afterward found that certain other substances, when rubbed, assumed electrical properties, and would attract or repel other materials. This electricity produced by rubbing or friction can be held for a considerable length of time, and hence it has received the name of *stationary or statical electricity.* This is the only form of electricity that we can store up and keep for a time. What is known now as the storage battery does not really store up electricity, but only energy, which can be transformed into electricity at will.

Dynamical electricity, or electricity in motion, circulates only in a conductor or along a wire, and cannot be held. It was first discovered by Galvani in experimenting on frogs' legs, and hence it is often called *galvanic* electricity. It is now ordinarily produced by means of galvanic batteries and dynamo machines.

The third form of electricity is called *magnetic electricity*, or *magnetism.*

According to the generally accepted theory, there are two so-called electrical fluids, and these two are commingled in equal proportions in all bodies; and hence all the processes for getting electricity must result in pulling these two electrical fluids apart, and in taking a portion of one away from a body. These two fluids are called, one positive and the other negative electricity. It is found that when two bodies are electrified with the same kind of electricity they repel each other; but when the two bodies are charged with opposite kinds of electricity, or when one body is charged with either kind while the other is left in its normal condition, then the two bodies attract each other.

When a piece of sealing-wax is rubbed it manifests electrical properties for some time, but certain other substances, like metals, for instance, after being rubbed in the same manner, show no electrical properties, and this is because the electricity easily gets away from them. Thus we find that while certain substances remain electrified for some time, others do not, and hence these bodies are named *conductors* and *non-conductors.* These terms are not absolute, but only comparative. The metals, carbon, gypsum and acids are called good conductors, while amber, glass, sulphur and silk are poor conductors. If we want to insulate electricity and keep it from running off into surrounding objects, we surround the object containing it with a poor conductor. Thus, the glass insulators on telegraph poles prevent the electricity from leaving the wires and running off into the ground, and the non-conducting materials placed around the wires of the Atlantic cable so protect it that a small charge of electricity will carry a message from here to Europe.

Great difficulty is experienced in experimenting with statical electricity, because it so easily gets away. All substances are conductors to a greater or less degree, including the dust in the air and the moisture in the atmosphere. Perfect insulation and a warm, dry air are, therefore, favorable conditions for holding statical electricity. The reason it was not used earlier for practical purposes was because it was so difficult to manage. The electricity which is produced on glass by friction is called vitreous or positive, while that produced in the same manner on shellac or sealing-wax is called resinous or negative electricity.

All bodies are, as has been said, charged with an equal amount of the two electrical fluids called positive and negative, but when a body is electrified these two fluids are separated so that one

remains in excess of the other. There is always a passage of the electrical fluid in two directions, along a conductor, but when the direction of the current is spoken of, it is the direction of the positive current that is always meant. Statical electricity can also be produced by pressure, as when certain crystals are firmly pressed together; by cleavage, as when two layers of mica are split apart; and by heat, as well as by friction. It may also be produced by torsion. It is found that the charge of electricity, if collected in a spherical body, is on the outside, and not within the body; and if it is not a spherical body, the electricity collects chiefly at the part most nearly pointed.

Electrical Machines.

Machines for producing statical electricity are usually based on the friction method. The old-fashioned machine consisted of a circular glass plate, which was rotated between two cushions, and the electricity thus produced was taken off and carried to a metallic cylinder, called the prime conductor, by means of metal points. Silk and glass as insulators prevented the electricity from running off into neighboring objects. More recently machines have been constructed on the principle of induction, as illustrated in the electrophorus.

The Leyden Jar.

The condensation of electricity is illustrated in the *Leyden jar*. This is a sort of bottle, lined up to a short distance from its top, both inside and outside, by tin-foil, and in the stopper is a brass knob, which is connected with the tin-foil on the inside of the jar by a chain. When the knob is charged with positive electricity from a machine, it collects on the tin-foil inside the jar, while a corresponding amount of negative electricity collects on the outside of the jar. By this means a large amount of electricity may be collected and held by the jar until discharged, by making connection between the tin-foil on the inside and that on the outside of the jar. The electricity is held, not on the tin-foil, but on the surface of the glass. This is proved by means of a jar that can be taken to pieces after being charged. Although the two pieces of metal which lined the inside and outside are now brought in contact, yet when the whole is put together again, the charge is found to remain, and it is discharged by connecting the knob with the metal lining of the outside. All that these metal linings accomplish here is to make a large conducting surface over the whole of the glass upon which the electricity collects.

The discharge of electricity from such a jar, or a battery of several of them connected, produces a variety of results. The spark will pass through a thin plate of glass or a card, and make a hole in them by disrupting them; or, in passing through points of metal, it heats them to a high temperature and vaporizes them, so that we get luminous effects from them.

Lightning

Is only the discharge of a Leyden jar on the grand scale upon which Nature performs her operations. Two clouds charged with opposite electricities, and separated by the non-conducting air, approach each other. When the tension becomes sufficient to overcome the resistance, the two forces rush together with a blinding flash and terrific peal. The lightning moves along the line where there is the least resistance, and so describes a zig-zag course. If we can trace the entire length, we call it chain lightning; if we only see the flash through intervening clouds, it is sheet-lightning; and if it is the reflection of distant discharges, we term it heat-lightning. The report of thunder is caused by the clashing of the atoms of displaced air. The rolling of the thunder is produced by the reflection of the sound from distant clouds. Sometimes the clouds and the earth become charged with opposite electricities, separated by the non-conducting air.

Lightning-rods are based on the principle that electricity always seeks the best conductor.

Providence has provided a harmless conductor in every leaf, spire of grass, and twig. A common blade of grass, pointed by Nature's exquisite workmanship, is three times more effectual than the finest cambric needle, and a single pointed twig than the metallic point of the best constructed rod.

The duration of the lightning flash has been estimated at one-millionth of a second. Some idea of its instantaneousness can be formed from the fact that the spokes of a wheel, revolved so rapidly as to become invisible by daylight, can be distinctly seen by a spark from a Leyden jar. Wheatstone considered the velocity of lightning through a copper wire to be 288,000 miles per second.

Lightning sometimes passes upward from the earth, both quietly and by sudden discharge.

Dynamical Electricity.

Now, a few words in regard to dynamical electricity. Galvani discovered, in experimenting on frogs, that when two pieces of metal, like copper and zinc, were placed in contact with the frog's leg and their ends connected, a movement of the leg would take place. Volta developed the *voltaic pile*, which at first consisted of alternate layers of zinc, wet paper, and copper, piled one on top of the other in varying numbers. It was found that when the top layer was connected with the bottom one, by means of wires, a current of electricity was set up. It became understood then, that the electricity was produced by the chemical action of the water in the paper on the zinc, and so more solvent fluids came to be used instead of water, and cloth was substituted for the paper.

The Galvanic Battery

Is simply a combination by which we produce this chemical action, and zinc is the metal acted upon. If a piece of copper and a piece of zinc be placed in water, containing a little sulphuric acid, and the ends of the copper and zinc be brought together, or connected by wires, a current of electricity will be established between them. A spark may be seen in the dark if the two wires are brought near together, but not in actual contact. This electricity is produced by the chemical action of the acid on the metal, and is called *voltaic* or *galvanic* electricity. A glass vessel containing the metals and acid is called a *cell*, and several cells connected together constitute the battery. The metal plate in which the chemical action is greatest is called the positive plate, and the other the negative plate. The free ends of the wires are called *electrodes*. The one attached to the positive plate is the negative electrode, and *vice versa*.

While zinc is universally used for one element, the second element in the battery may be composed of different kinds of metals, according to convenience.

A difficulty in using zinc as the positive element was soon found in the fact that little local currents were set up between it and the impurities contained in it, and this caused an unnecessary waste of the zinc. So it became customary to amalgamate the zinc in order to prevent this local action of the fluid upon it. The next improvement made was to prevent the little bubbles of hydrogen from collecting on the surface of the copper, thus keeping the liquid from coming in contact with it in all parts—that is, to prevent the "polarization" of the copper. For this purpose certain substances came to be used to absorb the hydrogen. The first of these substances was the sulphate of copper as used in the Daniells battery. This consisted of a copper vessel containing a porous cylinder in which was suspended a rod of zinc. Dilute sulphuric acid was contained in this cylinder, and in the copper vessel outside of the cylinder was placed a solution of the sulphate of copper. In this battery the hydrogen set free decomposes the sulphate of copper, forming with it sulphuric acid, and sets free copper which collects on the copper element.

Grove's battery consists of a glass vessel containing a porous cup, surrounded on the outside by a coil of amalgamated zinc, and on the inside is suspended a rod of platinum, instead of copper. The vessel outside of the porous cup is filled with dilute sulphuric acid, and inside with strong nitric acid. The nitric acid absorbs the hydrogen set free by the sulphuric acid and zinc. In the bichromate battery, the bichromate of potash dissolved in sulphuric acid is used to absorb the hydrogen, and chromic acid is formed. So the three substances in use for absorbing the hydrogen in different kinds of batteries are sulphate of copper, nitric acid and bichromate of potash. Bunsen suggested the use of gas carbon to take the place of the copper. His battery consists of a cylinder of carbon immersed in a vessel containing nitric acid, and within this cylinder is a porous cell containing sulphuric acid, in which the zinc is suspended. To avoid using the porous cups, the force of gravity has been brought into play in the construction of the so-called "gravity battery." This consists of a glass vessel with plates of copper at its bottom, and upon this crystals of sulphate of copper are scattered, while over all is poured pure water, in the upper portion of which is suspended a plate of zinc. A very little sulphuric acid is added to start the battery, and then its action will keep up. Gravity here keeps the two liquids apart—the solution of sulphate of copper at the bottom, and the dilute solution of sulphuric acid at the top. This battery produces a constant current, and will run for a very long time. The Leclanche battery consists of a porous cup containing sal ammoniac, in which is suspended a rod of zinc, and this cup is surrounded by the oxide of manganese as a depolarizer, immersed in which is the carbon. This battery is used when a current of electricity is desired for a very short time at once, as in striking burglar alarms, signal bells, etc. The galvanic battery is now being replaced for many purposes by dynamo-electric machines.

Electrolysis and Galvanoplasty.

A current of electricity passed through certain substances will decompose them, and this process is called *electrolysis*. Water may, for example, be thus separated into two gases, oxygen and hydrogen. The process of depositing metals by means of electricity is known as *galvanoplasty*.

Electroplating, sometimes called *galvanizing*, is the process of coating one metal with another by means of a galvanic battery. Gold and silver are deposited most readily on German silver, brass, copper, or nickel silver, the last mentioned being a composition of copper, zinc and nickel. Vessels to be plated with silver, for example, are thoroughly cleansed, and then hung in a solution of silver from the negative pole, while a plate of silver is suspended on the positive pole. In about five minutes a mere "blush" of the metal will be deposited, which perfectly conceals the baser metal and is susceptible of a high polish.

A vessel is gold-lined by filling it with a solution of gold, suspending in it a slip of gold from the positive pole of the battery, and then attaching the negative pole to the vessel; while the current passing through the liquid causes it to bubble like soda-water, and in a few moments deposits a thin film of gold.

Electrotyping is a process much used in copying medals, wood cuts, type, etc. An impression of the object is taken with gutta-percha, or wax; the surface to be copied is brushed over with black-lead to render it a conductor. The mold is then suspended in a solution of sulphate of copper, from the negative pole of the battery; a plate of copper is hung opposite on the positive pole. The electric current decomposes the sulphate of copper; the metal goes to the negative pole and is deposited upon the mold, while the acid, passing to the positive pole, dissolves the copper, and thus preserves the strength of the solution.

The Electric Light, Telegraph, Etc.

If a strong current of electricity is sent along a good conductor, it passes very easily; but if passed along a poor conductor, it makes it hot. This is the principle upon which is based the incandescent electric light. A current sent over a fine thread of carbon heats it to a white heat, and thus produces a brilliant light. The same principle holds in the arc light, where the air acts as the poor conductor. Here two pointed sticks of carbon are placed in contact until a current is started through them, and then they are gradually separated for a short distance, when the resistance offered by the air to the passage of the electricity from one point to the other heats them to incandescence, and small particles of carbon in a state of combustion are broken off and carried through the air, thus causing an arc of light between the carbon points. The incandescent electric light and the arc light form two systems of electric lighting.

The *galvanometer* is the most convenient method of measuring a current of electricity. This is a rotating needle, around which the current is passed.

The *electric telegraph* is an arrangement for sending messages by means of signals made by breaking and closing a voltaic circuit.

The *telephone*, *microphone*, etc., have been explained under the head of Acoustics.

CHEMISTRY.

CHEMISTRY is the science of atoms. It detects their relative power, their laws of combination and their means of decomposition. It enables us to understand the construction of bodies, and is one of the most instructive and useful studies. As astrology preceded astronomy, so alchemy paved the way for chemistry. For centuries learned but misguided men sought in vain the "elixir of life," a universal medicine to enable man to attain the longevity of the antediluvians, and groped for the "philosopher's stone," which, it was believed, could turn the baser metals into gold and silver. Gradually, however, the fallacy of alchemy was revealed, until Chemistry enlightened the world and demonstrated that it is impossible to change one element into another.

In nature we have simple and compound bodies, and the former are called *elements*. These must not be confounded with the so-called elements—earth, air, fire and water, which are really compound bodies. An element in chemistry is any substance which cannot be separated into two or more distinctly different substances. The number of these simple elements at present recognized is 65, divided into non-metallic and metallic. The non-metallic elements are called "metalloids." The list of the elements is as follows:

Non-Metallic Elements.		Symbols.	Atomic or Combining Weights.
Oxygen		O	16
Hydrogen	Gaseous	H	1
Nitrogen	Gaseous	N	14
Chlorine	Gaseous	Cl	35
Iodine	Solid	I	127
Fluorine	Solid	F	19
Carbon	Solid	C	12
Sulphur	Solid	S	32
Phosphorus	Solid	P	31
Arsenic*	Solid	As	75
Silicon	Solid	Si	28
Boron	Solid	B	11
Silenium	Solid	Se	79
Tellurium	Solid	Te	129
Bromine	Fluid		80
Metals.			
Aluminium		Al	27
Antimony (Stibium)		Sb	122
Barium		Ba	137
Bismuth		Bi	210
Cadmium		Cd	112
Cæsium		Cs	133
Calcium		Ca	40
Cerium		Ce	141
Chromium		Cr	52
Cobalt		Co	58
Copper		Cu	63
Didymium		D	147
Erbium		E	—
Gallium		Ga	70
Glucinum		Gl	9
Gold		Au	197
Indium		In	113

Metals. (continued.)	Symbols.	Atomic or Combining Weights.
Iridium	Ir	198
Iron	Fe	56
Lanthanum	La	139
Lead	Pb	207
Lithium	Li	7
Magnesium	Mg	24
Manganese	Mn	55
Mercury	Hg	200
Molybdenum	Mo	96
Nickel	Ni	58
Niobium (Columbium)	Nb	94
Osmium	Os	199
Palladium	Pl	106
Platinum	Pt	197
Potassium (Kalium)	K	39
Rhodium	Rh	104
Rubidium	Rb	85
Ruthenium	Ru	104
Silver (Argentum)	Ag	108
Sodium (Natrium)	Na	23
Strontium	Sr	87
Tantalum	Ta	182
Terbium	Tr	—
Thallium	Tl	204
Thorium	Th	230
Tin (Stannum)	Sn	118
Titanium	Ti	50
Tungesten (Walpam)	W	184
Uranium	U	240
Vanadium	V	51
Yttrium	Y	93
Zinc	Zn	65
Zirconium	Zr	89

* Sometimes considered a non-metallic and sometimes a metallic substance.

The term "combining weight" requires a little explanation. Water, for instance, is made up of oxygen and hydrogen in certain proportions. The proportions are in eighteen grains or parts of water, sixteen parts (by weight) of oxygen, and two parts (by weight) of hydrogen. These are the weights or proportions in which oxygen and hydrogen combine to form water, and such weights are always the same in these proportions. Chemical combination always occurs for certain substances in certain proportions which never vary in those compounds, and if we wish to extract oxygen from an oxide we must take the aggregate amount of the combining weights of the oxide, and we shall find the proportion of oxygen; for the compound always weighs the same as the sum of the elements that compose it. To return to the illustration of water. The molecule of water is made up of one atom of oxygen and two atoms of hydrogen. One atom of the former weighs sixteen times the atom of the latter. The weights given in the foregoing table are *atomic* weights, and the law of their proportions is called the *Atomic Theory*.

An *atom* in chemistry is usually considered the smallest quantity of matter that exists, and is indivisible. A *molecule* is supposed to contain two or more atoms, and is the smallest portion of a compound body. The standard atom is hydrogen, which is put down as 1, because we find that when one part by weight of hydrogen is put in combination, it must have many more parts *by weight* of others to form a compound. Two grains of hydrogen, combining with sixteen of oxygen, makes eighteen of water, as we have already seen.

The red oxide of mercury contains sixteen parts by weight of oxygen to two hundred parts by weight of mercury (we see the same numbers in the table); these combined make two hundred and sixteen parts of oxide. So, to obtain sixteen pounds of oxygen, we must get two hundred and sixteen pounds of the powder. It is the same all through, and it will be found by experiment, that if any more parts than these fixed proportions be taken to form a compound, some of that element used in excess will remain free. Lime is made up of calcium and oxygen. We find calcium combining weight is forty, oxygen sixteen. Lime is oxide of calcium in these proportions (by weight).

When we wish to express the number of atoms in a compound, we write the number underneath when more than one; thus water is H_2O. Sulphuric acid, H_2SO_4.

In chemistry we have acids, alkalis and salts, with metallic oxides, termed bases, or bodies that, when combined with acids, form salts. Alkalis are bases.

ACIDS are compounds which possess an acid taste, impart red color to vegetable blues, but lose their qualities when combined with bases. Hydrogen is present in all acids. There are insoluble acids. Silicic acid, for instance, is not soluble in water, has no sour taste, and will not redden the test litmus paper. On the other hand, there are substances, not acids, which possess the characteristics of acids, and most acids have only one or two of these characteristics. Thus it has come to pass that the term "acid" has, in a measure, dropped out from scientific nomenclature, and salt of hydrogen has been substituted by chemists. For popular exposition, however, the term is retained.

ALKALIS are bases distinguished by an alkaline taste. The derivation is from the Arabic, *al-kali*. They are characterized by certain properties, and they change vegetable blues to green, and will restore the blue to a substance which has been reddened by acid. They are soluble in water, and the solutions are caustic in their effects. Potash, soda and ammonia are alkalis, or, chemically, the oxides of potassium; sodium, ammonium, lithium and cæsium are all alkalis. Potash is sometimes called "caustic" potash. There are alkaline earths, such as oxides of barium, strontium, etc. *Bases* may be defined as the converse of acids.

Acids and alkalis are then evidently opposite in character, and yet they readily combine, and we find that unlike bodies are very fond of combining (just as opposite electricities attract each other), and the body made by this combination differs in its properties from its constituents.

SALTS are composed of acids and bases, and are considered neutral compounds, but there are other bodies, not salts, which likewise come under that definition—sugar, for instance. As a rule, when acids and alkalis combine *salts* are found.

Chemical phenomena are divided into two groups, called *inorganic* and *organic*, comprising the simple and compound aspects of the subject, the elementary substances being in the first, and the chemistry of animals or vegetables, or organic substances, in the latter. In the inorganic section we become acquainted with the elements and their combinations so often seen as *minerals* in nature. Chemical *preparations* are artificially prepared. To consider these elements we must have certain appliances, and indeed a laboratory is needed. Heat, as we have already seen plays a great part in developing substances, and by means of heat we can do a great deal in the way of chemical decomposition. It expands, and thus diminishes cohesion; it counteracts the chemical attraction. Light and electricity also decompose chemical combinations.

The earth, and its surrounding envelope, the atmosphere, consist of a number of elements, which in myriad combinations give us everything we possess. The air we breathe, the water we drink, the fire that warms us, are all made up of certain elements or gases. Water is hydrogen and oxygen; air, oxygen and nitrogen. Fire is combustion evolving light and heat. Chemical union always evolves heat, and when such union proceeds very rapidly fire is the result.

But in all these combinations not a particle or atom of matter is ever lost. It may change or combine or be "given off," but the matter in some shape or way exists still. We may burn things, and rid ourselves, as we think, of them. We do rid ourselves of the compounds, but the elements remain somewhere. We only alter the *condition*. During combustion, as in a candle or a fire, the simple bodies assume gaseous or other forms, such as carbon, but they do not escape far. True, they pass beyond our ken, but nature is so nicely balanced that there is a place for everything, and everything is in its place, under certain conditions which never alter. We cannot *destroy* and we cannot *create*. We may prepare a combination, and science has even succeeded in producing a form like the diamond—a crystal of carbon which looks like that most beautiful of all crystals, but we cannot make a diamond after all. We can only separate the chemical compounds. We can turn diamonds into charcoal, it is true, but we cannot create "natural" products. We can take a particle of an element and hide it, or let it pass beyond our ken, and remain incapable of detection, but the particle is there all the time, and when we retrace our steps we shall find it as it was before.

This view of chemistry carries it as a science beyond the mere holiday amusement we frequently take it to be. It is a grand study—a study for a lifetime. The more we inquire, the more we shall find we have to learn. In this work it was only possible to give a brief introduction. There are numerous excellent treatises on chemistry, but, exhaustive as they are, they do not tell us all. Nature, however, is always willing, like a kind, good mother, to render up her secrets, if we inquire respectfully and lovingly.

ASTRONOMY.

"He, who through vast immensity can pierce,
See worlds on worlds compose one universe,
Observe how system into system runs,
What other planets circle other suns,
What varied being peoples every star,
May tell us why Heaven has made us as we are."
—POPE.

The Wonders of the Heavens as Revealed by the Telescope.
A History of the Progress of Astronomical Science.

ASTRONOMY is the science which treats of the heavenly bodies and the laws which govern them. The space in which the celestial orbs are set is infinite and known as the "firmament" or "heaven." We can see a few stars, comparatively speaking, but there are numbers whose light has never yet reached the earth. When we calmly reason upon the immeasurable distances, and the awful rapidity of motion, with the masses of matter thus in movement, we are constrained to acknowledge that all our boasted knowledge is as nothing in the wondrous dispensation of Him who "telleth the number of the stars and calleth them all by their names."

Astronomy is the most ancient of all sciences. The study of the stars is, without doubt, as old as man himself, and hence many of its discoveries date back of authentic records, amid the dim mysteries of tradition.

The Chinese possess an account of a conjunction of four planets and the moon, which must have occurred a century before the flood. They have also the first record of an eclipse of the sun, which took place about two hundred and twenty years after the deluge.



Fig. 1. The Solar System.

The Chaldean shepherds, watching their flocks by night under the open sky, could not fail to become familiar with many of the movements of the heavenly bodies. The Chaldeans invented the sun-dial, and also discovered the "Saros," or "Chaldean Period," which is the length of time in which the eclipses of the sun and moon repeat themselves in the same order.

Thales, who was noted for his electrical discoveries, and acquired much renown, established the first school of astronomy in Greece. He taught that the earth is round, and that the moon receives her light from the sun. He also introduced the division of the earth's surface into zones, and the theory of the obliquity of the ecliptic. He predicted an eclipse of the sun which is memorable in ancient history as having terminated a war between the Medes and the Lydians. These nations were engaged in a fierce battle, but the awe produced by the darkening of the sun was so great that both sides threw down their arms and made peace.

Anaximander and Anaxagoras were pupils of Thales. Anaximander taught that the stars are suns, and that the planets are

inhabited. Anaxagoras maintained that there is but one God, that the sun is solid, and as large as the country of Greece, and attempted to explain eclipses and other celestial phenomena by natural causes. For his audacity and impiety, as his countrymen considered it, he and his family were doomed to perpetual banishment.

Pythagoras founded the second celebrated astronomical school at Crotona, at which were educated hundreds of enthusiastic pupils. He knew the causes of eclipses, and calculated them by means of the Saros. Pythagoras was most emphatically a dreamer. He conceived a system of the universe in many respects correct; yet he advanced no proof, and made few converts to his views, and they were soon well nigh forgotten. He held that the sun is the center of the solar system, and that the planets revolve about it in circular orbits; that the earth revolves daily on its axis, and yearly around the sun; that Venus is both morning and evening star; that the planets are inhabited—and he even attempted to calculate the size of some of the animals in the moon; that the planets are placed at intervals corresponding to the scale in music, and that they move in harmony, making the "music of the spheres," but that this celestial concert is heard only by the gods—the ears of man being too gross for such divine melody. Pythagoras believed the sun to be 44,000 miles from the earth, and 75 miles in diameter.

Eudoxus held that the heavenly bodies are set, like gems, in hollow, transparent crystal globes, so pure that they do not obstruct the view, and that they all revolve around the earth.

Hipparchus, who flourished in the second century B.C., has been called the "Newton of Antiquity." He was the most celebrated of the Greek astronomers; he calculated the length of the year within six minutes, discovered the precession of the equinoxes, and made the first catalogue of the stars—1,081 in number.

Egypt, as well as Chaldea, was noted for its knowledge of the sciences long before they were cultivated in Greece. It was the practice of Grecian philosophers, before aspiring to the rank of teacher, to travel for years through these countries, and gather wisdom at its fountain-head. Pythagoras thus spent thirty years in traveling.

About two hundred years after Pythagoras the celebrated school of Alexandria was established. Here were concentrated in vast libraries and princely halls nearly all the wisdom and learning of the world; here flourished all the sciences and arts, under the patronage of generous kings.

The Ptolemaic System.

Ptolemy of Alexandria (A.D. 130–150) was the founder of a theory called the Ptolemaic system, based largely upon the materials gathered by previous astronomers, such as Hipparchus, already mentioned, and Eratosthenes, who computed the size of the earth by means even now considered the best—the measurement of an arc of the meridian. The advocates of the Ptolemaic theory assumed that every planet revolves in a circle, and that the earth is the fixed center around which the sun and the heavenly bodies move. They conceived that a bar, or something equivalent, is connected at one end with the earth; that at some part of this bar the sun is attached; while between that and the earth, Venus is fastened, not to the bar directly, but to a sort of crank; and farther on, Mercury is hitched on in the same way. They did not fully understand the nature of these bars—whether they were real or only imaginary—but they did comprehend their action, as they thought; and so they supposed the bar revolved, carrying the sun and planets along in a large circle about the earth; while all the short cranks kept flying around, thus sweeping each planet through a smaller circle.

The movements of the planets were to the ancients extremely complex. Venus, for instance, was sometimes seen as "evening star" in the west; and then again as "morning star" in the east. Sometimes she seemed to be moving in the same direction as the sun, then, going apparently behind the sun, she appeared to pass on again in a course directly opposite. At one time she would recede from the sun more and more slowly and coyly, until she would appear to be entirely stationary; then she would retrace her steps, and seem to meet the sun. All these facts were attempted to be accounted for by an incongruous system of "cycles and epicycles."

The system of Ptolemy passed current for 1400 years, and during this time

Astrology

was ranked as one of the most important branches of knowledge. Star diviners were held in the greatest estimation, and the issue of any important undertaking, or the fortune of an individual, was foretold by means of horoscopes representing the position of the stars and planets. The system of the astrologers was very complicated, and contained regular rules to guide the interpretation, so intricate that years of study were required for their mastery. Venus foretold love; Mars, war; the Pleiades, storms at sea. Not only the ignorant were the dupes of this system, Lord Bacon believing in it most firmly.

The Copernican System.

The system as now accepted is called the Copernican system, after Nicholas Kopernik, or Copernicus, who, in 1543, breaking away from the theory of Ptolemy, revived that of Pythagoras. He saw the beautiful simplicity of considering the sun the grand center about which revolve the earth and all the planets. He noticed how constantly, when we are riding swiftly, we forget our motion, and think that objects really stationary are gliding by us in the contrary direction. He applied this thought to the movements of the heavenly bodies, and maintained that, instead of the starry hosts revolving about the earth once in twenty-four hours, the earth simply turns on its own axis; that this produces the apparent daily revolution of the sun and stars, while the yearly motion of the earth about the sun, transferred in the same manner to that body, would account for its various movements.

Tycho Brahe opposed the Copernican theory, but made many important investigations. Then came Kepler, who adopted the Copernican theory, and whose observations upon the planet Mars cleared away many complications. He laid down three laws, as follows: *1. Planets revolve in ellipses, with the sun at one focus. 2. A line connecting the center of the earth with the*

center of the sun passes over equal spaces in equal times. 3. The squares of the times of revolution of the planets about the sun are proportional to the cubes of their mean distances from the sun. Kepler also remarked that gravity was a power existing between all bodies, and reasoned upon the tides being caused by the attraction of the moon for the waters. About this time, viz.: the beginning of the seventeenth century, the telescope was invented, and logarithms came into use. The telescope did not penetrate into Southern Europe till 1608–9.

Galileo, who had discovered the laws of the pendulum and of falling bodies, learned that a Dutch watchmaker had invented a contrivance for making distant objects appear near. With his profound knowledge of optics and philosophical instruments, he instantly caught the idea, and soon had a telescope completed that would magnify thirty times. With this instrument he examined the moon, discovered its mountains and valleys, and watched the dense shadows sweep over its plains. Near Jupiter he saw three bright stars, as he considered them, which were invisible to the naked eye. Shortly after, he noticed those stars had changed their relative positions. Being somewhat perplexed, he waited three days for a fair night in which to resume his observations. The fourth night was favorable, and he again found the three stars had shifted. After continued observations he discovered a fourth star, and finally found that they were all rapidly revolving around Jupiter, each in its elliptical orbit, with its own rate of motion, and all accompanying the planet in its journey around the sun. Here was a miniature Copernican system, hung up in the sky for all to see and examine for themselves. Galileo met with the most bitter opposition. A great many refused to look through the telescope, lest they might become victims of the philosopher's magic. Some prated of the wickedness of digging out valleys in the fair face of the moon; while others doggedly clung to the theory they had held from their youth up.

Then Newton promulgated his immortal discovery of the law of gravitation—that *every particle of matter in the universe attracts every other particle of matter with a force directly proportional to its quantity of matter, and decreasing as the square of the distance increases*—and the relations of the sun and planets became more evident.

Subsequent researches brought astronomy into prominence more and more. The spectroscope has, in the able hands of living astronomers, revealed to us elements existing in the vapors and composition of the sun and other heavenly bodies. Stars are now known to be suns, some bearing a great resemblance to our sun, others differing materially. The nebulæ have been analyzed, and found to be stars, or gas, burning in space—hydrogen and nitrogen being the chief constituents of this glowing matter. Instruments for astronomical observation have now been brought to a pitch of perfection scarcely ever dreamed of, and month by month discoveries are made and recorded, while calculations as to certain combinations can be made with almost miraculous accuracy. The transit of Venus, the approaches of comets, eclipses, and the movements of stars, are now known accurately and commented on long before the events can take place.

THE SOLAR SYSTEM.

Gravitation is the force which keeps the planets in their orbits. The sun attracts the planets, and they influence him in a minor degree. Likewise the moon and stars and our earth attract each other. But as the sun's mass is far greater than the masses of the planets he influences them more, and could absorb them all without inconvenience or disturbance from his center of gravity.

Every body will remain at rest unless force compels it to change its position, and it will then go on forever in a straight path, unless something stops it. But if this body be acted on simultaneously by two forces in different directions it will go in the direction of the greater force. Two equal forces will tend to give it an intermediate direction, and an equal opposing

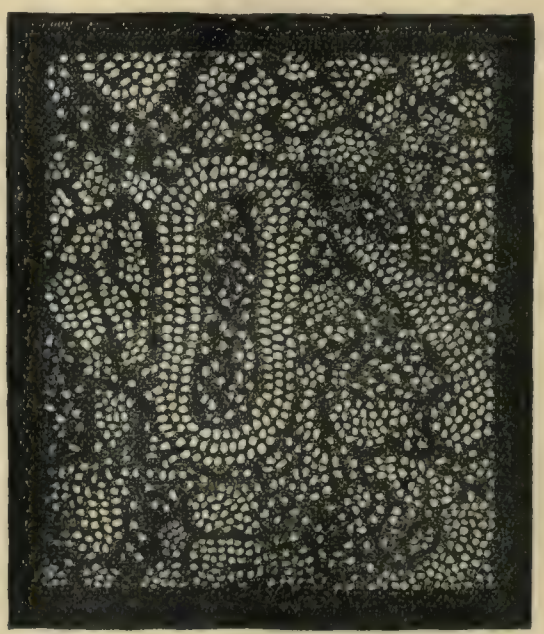


Fig. 2.
The Surface of the Sun as seen through a Powerful Telescope.

force will stop it. The last axiom but one—viz., the two equal forces in different, not opposing directions—gives us the key to the curving line of the planetary motions. Were it not for the attraction of the sun, the planets would fly off at a tangent; while, on the other hand, were not the impelling force as great as it is, they would fall into the sun. Thus they take an intermediate line, and circle round the center of the solar system—the SUN.

The solar system consists of: (1) The sun—the center; (2) the major planets—Vulcan (undetermined), Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune; (3) the asteroids, or minor planets, at present (January, 1892) 322 in number; (4) the satellites, or moons, which revolve around the different planets; (5) meteors and shooting stars; (6) comets.

The stars called planets have certain motions, going from east to west, from west to east, and sometimes again appearing quite motionless. This change of place, appearing now at one side of the sun and now at another, has given them their title of "wanderers." The planets and their satellites, the asteroids, comets and meteors, all circle round the sun in more or less regular orbits. And there must be families of comets that have not yet appeared to us, and whole systems of meteors as yet unseen.

THE SUN.

When we consider the power and grandeur of the sun, we may well feel lost in the contemplation. He balances the planets and keeps them in their orbits. He gives us light and heat, and in darkness nothing will come to maturity. We obtain rain and dew owing to his evaporative power, and no action could go on upon the earth without him.

The sun is not solid so far as we can tell. It is apparently a mass of white-hot vapor, and is enabled to shine by reason of its own light, which the planets and stars cannot do, they shining only by the sun's reflected light. From this we might conclude that the sun is entirely gaseous, but, in the recent researches in *spectrum analysis*, the light of the sun has been examined by means of the spectroscope, and split up into its component colors, and scientists have discovered that a number of elements exist in the sun in a vaporous state. Hydrogen is there, with other gases unknown to us, and many metals, discovered by their *spectra*, which are the same under similar circumstances. The sun is supposed to be spherical in shape — not flattened at the poles, as our earth is — and to be composed of materials similar to those which constitute the earth, only that in the sun these materials are still in a heated condition. Thus we can argue, by analogy from the *spectra* of earthly elements, that as the sun and star light give us similar spectra, the heavenly bodies are composed of the same elements as our globe.

When the surface of the sun is examined with a good telescope, under favorable atmospheric conditions, it appears to be composed of minute grains of intense brilliancy and of irregular form, floating in a darker medium and arranged in groups and streaks, as shown in Fig. 2. With a rather low power the general effect of the surface is much like that of rough drawing-paper.

The sun's average distance from the earth is 91,500,000 miles.

The volume of the sun is 1,253,000 times that of the earth, but its density is only about one-fourth that of the earth. The attraction of gravitation at the sun must be more than that of the earth's surface twenty-seven times. A body dropped near the surface of the sun would fall 436 feet in the first second, and would then have attained a velocity of ten miles a minute.

The light of the sun is equal to 5,563 wax candles, held at a distance of one foot from the eye. It would require 800,000 full moons to produce a day as brilliant as one of cloudless sunshine.

The amount of heat we receive annually is sufficient to melt a layer of ice thirty-eight yards in thickness, extending over the whole earth.

The sun appears to be about half a degree in diameter, so that 360 disks like the sun, laid side by side, would make a half circle of the celestial sphere. It seems a little larger to us in winter than in summer, as we are 3,000,000 miles nearer it.

The sun makes the apparent circuit of the heavens in 365 *d.* 6 *h.* 9 *m.* 9.6 *s.*; the transit from one vernal equinox to the next being only 365 *d.* 5 *h.* 48 *m.* 48.6 *s.*, owing to the precession of the equinoxes, explained elsewhere.

The Sun's Apparent Motion.

If we rise early in the morning we shall, as the reader will say, see the sun rise—that is, he appears to us to rise as the earth rotates. By the accompanying diagram (Fig. 3) we can



Fig. 3. The Sun's Apparent Motion.

understand how Sol makes his appearance, and how he comes up again. The earth rotates from west to east, and so the sun appears to move from east to west. If we look at the diagram we shall see that after rising at O the sun advances toward the meridian in an oblique arc to A, the highest or culminating point—midday. He then returns, descending to W; this path is the diurnal arc. At Q similarly, during his passage in the nocturnal arc, he reaches the lowest or inferior culmination. H H is the meridian.

On the 21st of March this path brings the sun on the "equinoctial" line. Day and night are then of equal duration, as the arcs are equal. So this is the *vernal* (or spring) *equinox*. Some weeks after the sun is at midday higher up at S′, and so, the diurnal arc being longer, the day is longer. (Z is the zenith, Z′ is the nadir, P P′ is the celestial axis.) From that time he descends *again* toward the equinoctial to the autumnal equinox, and so on, the diurnal arc becoming smaller and smaller until the *winter solstice* is reached (S).

Now, the sun has a two-fold apparent motion — viz., a circular motion obliquely ascending from the horizon, which is explained by the rotation of the earth, and by our position, *o*, to the earth's axis, *p p′*, and also by a rising and setting motion between the solstitial points, S and S′, which causes the inequality of the days and nights. Independently of the daily motion of the sun, we observe that at the summer solstice, on the 21st of June, at midday, the sun is at S′, and one half year later, viz., on the 21st of December, at midnight, the sun is at *s*, from which he arrives again in the space of half a year at S′; so we are able to represent this annual motion of the sun by a

circle, the diameter of which is the line S′ *s*. This circle is called the *Ecliptic*.

The plane of the ecliptic, S′ *s*, cuts the plane of the equinoctial, A Q, at an angle of 23½°, and the axis of the ecliptic, S‴ *s*‴, makes the same angle with the axis of the heavens, P P. The two parallel circles S′ *s*′ and S *s* include a zone extend-

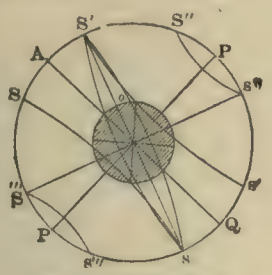


Fig. 4. The Ecliptic.

ing to both sides of the equinoctial, and beyond which the sun never passes. These circles are called the *tropics*, from *trepo*, *I turn*, because the sun turns back at these points, and again approaches the equinoctial. The parallel circles S″ *s*″ and S‴ *s*‴ described by the poles of the ecliptic, S‴ *s*‴, about the celestial poles, P P, are called the *arctic* and *antarctic circles*.

Whenever the sun crosses the equinoctial, there is the equinox; but the points of intersection are not invariably the same every year. There is a gradual westerly movement, so it is a little behind its former crossing-place every year. This is the "*precession of the equinoxes*," because the time of the equinoxes is hastened, but it is really a retrograde movement. Hipparchus discovered this motion, which amounts to about fifty seconds in a year. So the whole revolution will be completed in about 28,000 years.

Sun-Spots.

Sun-spots, as they are generally called, are hollows in the sun's vapory substance, and are of enormous extent; and there are brilliant places near those spots, which are termed *faculæ*. These spots have been observed to be changing continuously, and passing from east to west across the sun, and then to come again at the east, to go over the same space again. Now this fact has proved that the sun turns around upon his axis, and, although he does not move, as we imagine, from east to west, round the earth, the orb *does* move — in fact, the sun has three motions: one on his axis; secondly, a motion about the center of gravity of the solar system, and a progressive movement toward the constellation Hercules.

Solar Prominences.

During solar eclipses the sun exhibits what are termed "red prominences,"— the luminous vapors existing around it. When the orb is eclipsed, bright-colored vapors can be seen shooting out from underneath the dark shadow. These red prominences were first observed in 1842, and in 1851 it was proved that they appertained to the sun, for the moon hid them as the eclipse began. "The luminosity of these prominences is intense," says Secci, "and they often rise to a height of 80,000 miles, and occasionally to more than twice that; then, bending back, they fall again upon the sun like the jets of fountains. Then they spread into figures resembling gigantic trees, more or less rich in branches."

THE PLANETS.

The ancients knew five of the planets and named them *Mercury*, *Venus*, *Mars*, *Jupiter* and *Saturn*. In later years a great number were discovered, but we must confine ourselves to the consideration of the principal ones, eight in number, including our own *Earth*, *Uranus* and *Neptune* completing the list. Of these, Venus and Mercury are the interior (or inferior) planets, moving between us and the sun; the others are called exterior (or superior), and pass quite round the heavens. All the planets are spheroids, and they vary greatly in size. Their comparative distance and magnitude are thus interestingly illustrated by Sir John Herschel:

"Choose any well-leveled field, and on it place a globe two feet in diameter to represent the sun. Mercury will be represented by a grain of mustard seed on the circumference of a circle 164 feet in diameter for its orbit; Venus, a pea, on a circle 284 feet in diameter; the Earth, also a pea on a circle 430 feet; Mars, a rather large pin's head on a circle of 654 feet; Juno, Ceres, Vesta, and Pallas, grains of sand in orbits of 1,000 to 1,200 feet; Jupiter, a moderate-sized orange on a circle nearly half a mile across; Saturn, a small orange on a circle four-fifths of a mile; and Uranus, a full-sized cherry, or small plum, upon the circumference of a circle more than a mile and a half in diameter."

Comparative Table showing the Diameter, Distance from the Sun, Volume, Density, etc., of the Planets of the Solar System.*

	Diameter in Miles.	Mean distance from the sun, in miles, (about).	Sidereal period of revolution. (Length of year).			Time of rotation on their axes.		Average velocity. Miles per second.	Volume, earth being 1.	Density, earth being 1.	Weight, earth being 1.	Date of Discovery.
			d.	h.	m.	d.	h.					
The Sun	888,646								1,412,225.00	0.25	354,936.00	
Mercury	3,089	35,000,000	87	23	16	24	5½	30	0.05	1.22	0.07	Antiquity.
Venus	7,896	66,000,000	224	16	50	23	21⅓	22	0.99	0.90	0.91	Antiquity.
Earth	7,926	91,000,000	365	6	9	23	56	18	1.00	1.00	1.00	
Mars	4,070	139,000,000	686	23	31	24	37⅓	15	0.13	0.97	0.13	Antiquity.
Jupiter	92,164	476,000,000	4,332	14	2	9	55½	8⅓	1,491.00	0.22	338.71	Antiquity.
Saturn	75,070	872,000,000	10,759	5	16	10	15	.....	772.00	0.13	101.36	Antiquity.
Uranus	36,216	1,753,000,000	30,686	17	21	9	30	.....	86.50	0.16	14.25	Herschel, 1781.
Neptune	33,610	2,746,000,000	60,126	17	5	.....		3⅓	76.60	0.32	18.98	Leverrier and Galle, 1846.

* The planet Vulcan, discovered in 1859, and having its orbit next to the sun, is still undetermined. Prof. Tice estimates that its diameter is as large as that of Uranus.

The planets revolve upon their axes in the same manner as the earth. This we know by telescopic observation to be the case with many planets, and by analogy the rule may be extended to all. Conformably to the principles of gravitation, their velocity is greatest at those parts of their orbit which are nearest the sun, and least at the parts which are most distant from it; in other words, they move quickest in perihelion, and slowest in aphelion.

The question whether the planets are inhabited cannot be satisfactorily answered. There are many who think that the only object God can possibly have in making any world is to form an abode for man. Our own earth was evidently fitted up, although perhaps not created, for this express purpose. When we turn to the planets we do not know but God has other races of intelligent beings who inhabit them, or even entirely different ends to attain. Of this, however, we are fully assured, that, if inhabited, the conditions on which life is supported vary much from those familiar to us.

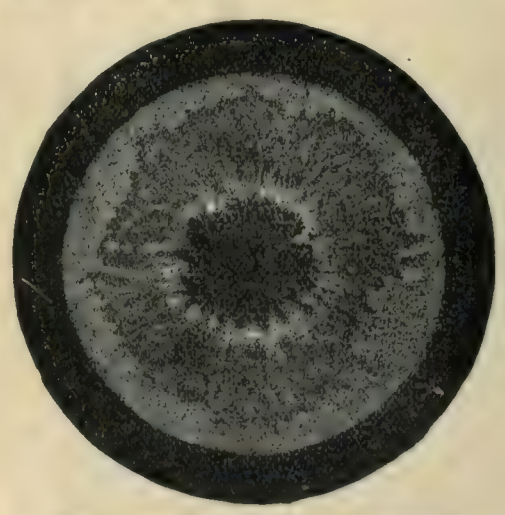


Fig. 5. General Appearance of a Sun-Spot.

Satellites, or "*planetary moons*," are plainly perceived attending upon the great planets. One we are all familiar with—the moon, which lends a beauty to our nights which no other light that we can command can ever do.

Mars possesses two moons and Jupiter four; Uranus rejoices in the latter number; Neptune has only one; no less than eight satellites wait upon Saturn. No doubt there are many more of these moons to be found, and every year will doubtless bring us further knowledge respecting them. Mars' moons were discovered only in 1877, although known to exist. Jupiter's moons are supposed to be as large as our own moon; Neptune and Uranus can boast of equally-sized attendants.

MERCURY.

The distance of Mercury from the sun is less than half that of our earth, and so it receives much more heat and light than we do. The sun to the Mercurians, if there be any inhabitants upon the planet, must appear about seven times larger than he does to us. When the sky is very clear we may sometimes see Mercury, just after the setting of the sun, as a bright, sparkling star near the western horizon. Its elevation increases evening by evening, but never exceeds 30°. And if we watch it closely, we shall find that it again approaches the sun and becomes lost in his rays. Some days afterward, just before sunrise, we can see the same star in the east, rising higher each morning, until its greatest elevation equals that which it before attained in the west. Mercury's orbit is the most eccentric of any of the eight principal planets, so that, although when in perihelion it approaches to within 28,000,000 miles, in aphelion it speeds away 15,000,000 miles farther, or to the distance of 43,000,000 miles. Being so near the sun, its motion in its orbit is correspondingly rapid — thirty miles per second.

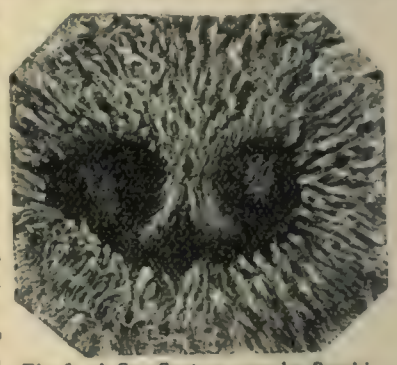


Fig. 6. A Sun-Spot as seen by Secchi.

VENUS.

Venus, the nearest planet to the earth, is somewhat smaller than the latter. This planet is both a morning and evening star, and is very brilliant—so much so, that close observation with the telescope is impossible. When at her nearest point she is invisible, as she passes between us and the sun, and of course when fully illuminated she is directly beyond the sun, and inclosed in his rays. But under other circumstances she is distinctly visible as a crescent in the evening, and nearly full as a morning star. Venus has long been celebrated as the morning and evening star, as "Lucifer" and "Hesperus."

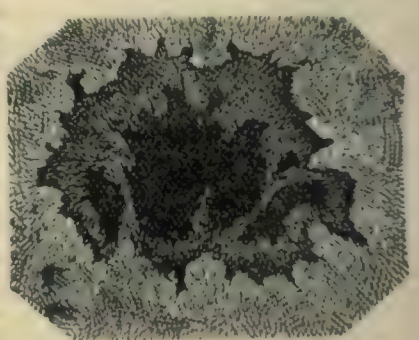


Fig. 7. A Sun-Spot as seen by Nasmith.

That Venus possesses an atmosphere denser than our own can scarcely be doubted. The observations made during successive transits seem to have established the fact that aqueous vapor exists around, and water in, Venus. No satellite can be found, although the ancients reported such an attendant. A transit of Venus, like one of Mercury, is simply a passing of the planet across the illuminated disc of the sun. The transits afford means to ascertain the volume, distance, etc., of the sun. The last occurred in 1882, and there will not be another for more

than a hundred years. The seasons in Venus must be very different from ours. As her inclination is greater than that of our earth, and as the sun is so much nearer to her than to us, her tropical and polar regions are close, and a vertical sun is scarcely enjoyed by two places for three successive days, and she may have two winters and summers, two springs and autumns.

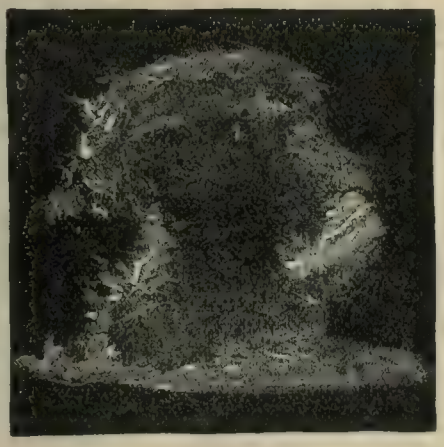


Fig. 8. A Solar Prôminence.

The evidence of an atmosphere, as well as of mountains, rests very much upon the peculiar appearance attending her crescent shape. The luminous part does not end abruptly; on the contrary its light diminishes gradually. This diminution may be entirely explained by the twilight on the planet. The existence of an atmosphere which diffuses the rays of light into regions where the sun has already set, has hence been inferred. Thus, on Venus, the evenings, like ours, are lighted by twilight, and the mornings by dawn. The edge of the illuminated portion of the planet is uneven and irregular, and this appearance is doubtless the effect of shadows cast by mountains.

OUR EARTH AND HER SATELLITE.

It seems rather strange to class our earth, which is dark and opaque, and which appears to us so vast, among the bright heavenly bodies. Nevertheless it is one of the smallest of the principal planets of the solar system, and although we see in it no motion, while the orbs about us seem constantly changing their position, science has demonstrated that it revolves around the sun, in an orbit of nearly 600,000,000 miles, at the tremendous rate of eighteen miles per second, or 65,000 miles an hour. To other worlds our earth appears as a star does to us. In studying astronomy we must consider that it is a planet shining brightly in the heavens, held in its course by the invisible power of gravitation, and that in reality it is small and insignificant beside some of the mighty globes that so gently shine upon us from distances almost inconceivable; that our earth, in fact, is only one atom in a universe of worlds, all firm and solid, and all, perhaps, equally well fitted to be the abode of life.

Science teaches us that the earth was doubtless once a glowing star, and under the head of *Physical Geography* we can see that the Scriptures confirm this doctrine. The crust upon which we thrive is only the cinders and ashes of a fearful conflagration, and the air we breathe is only the gas left over when the fuel was consumed.

The earth has two motions—one from east to west, in its course round the sun, and one on its own axis. If we send a ball rolling we perceive that it turns round as it proceeds. So the earth turns on its axis, the extremities of which are called the *poles*. The horizon appears to us stationary, and so the stars we see at night seem to move. Those on the west, which are passed over and hidden, seem to have sunk or set, and those on the east seem to have moved above or risen. The sun seems to move by day, and the stars by night, but this is a mere optical delusion—a delusion in which the untaught mind is confirmed by the relative fixity of everything on our globe, the apparent rest of everything around.

The earth's rotation, according to sidereal time, is less than solar time, and we have 365 solar days and 366 sidereal days. A person going round the world would gain or lose a day, as he traveled east or west, according to his reckoning as compared with the reckoning of friends at home. We can best ascertain the earth's motion by watching the stars rise and set. The earth proceeds at its tremendous pace round the sun in an ellipse or oval track, 600,000,000 miles in length, from which it never moves, year by year, in any appreciable degree. Now what prevents this earth of ours from rushing off by itself into



Fig. 9. The Earth in Space.

space? The reason is because the sun holds it back. The force of the sun's gravitation is so enormously great that it suffices to retain our globe and all the planets in their various orbits, and to counteract the force which launches them through space. If the earth were suddenly to increase her velocity or the sun to contract his mass, we should be flung into infinite

space, and in a short time would be frozen up completely. Our present diurnal course would probably proceed, but all life would cease as we whirled with distant planets through infinity. If, on the other hand, the earth were to stop suddenly, an amount of heat would be engendered sufficient to raise the temperature of a globe of lead the same size as our globe 384,000° of the Centigrade thermometer, and, as Prof. Tyndall says, the greater part, if not the whole, of our planet would be reduced to vapor. But against such a catastrophe we are assured by the immutability of God's laws. The variation in the earth's revolution has not exceeded the hundredth part of a second in 2,000 years.

The Seasons.

In the diagram (Fig. 10) we shall at once find the explanation of the constantly recurring seasons, and the amount of

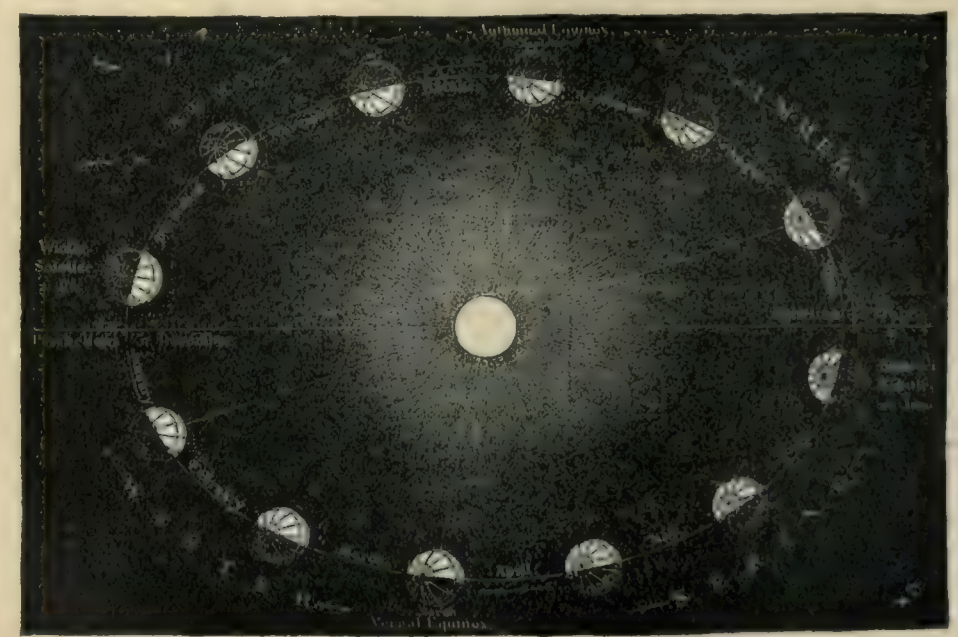


Fig. 10. The Seasons.

our globe which is illuminated by the sun at various times. It will be easily understood that the poles have six months day and six months night. When the earth is at an equinox, one-half of the surface is illuminated and the other half in shade; therefore the days and nights are equal. But when the north pole turns more and more toward the sun, the south pole is turning away from it in the same ratio,—the days and nights respectively are getting longer and longer, and at the north and south poles day and night are continuous, for the small spaces round the poles are, during a certain period, wholly in sunshine and shade respectively.

When the earth is in Libra, and also when in Aries,* the rays strike vertically at the equator, and more and more obliquely in the northern and southern hemispheres, as the distance from the equator increases, until at the poles they strike almost horizontally. This variation in the direction of the rays produces a corresponding variation in the intensity of the sun's heat and light at different places, and accounts for the difference between the torrid and polar regions. As the earth changes its position, the angle at which the rays strike any portion is varied. For instance, take the earth as it enters Capricornus, and the sun in Cancer. He is now overhead 23½° *north* of the equator. His rays strike less obliquely in the northern hemisphere than when the earth was in Libra. Let six months elapse: The earth is now in Cancer and the sun in Capricornus; and he is overhead 23½° *south* of the equator. His rays strike less obliquely in the southern hemisphere than before, but in the northern hemisphere more obliquely. These six months have changed the direction of the sun's rays on every part of the earth's surface. This accounts for the difference in temperature between summer and winter.

At the equinoxes one-half of each hemisphere is illuminated; hence the name equinox (*æquus*, equal, and *nox*, night). At these points of the orbit the days and nights are equal over the entire earth, each being twelve hours in length.

When the earth is at the summer solstice, about the 21st of June, the sun is overhead 23½° north of the equator, and if its vertical rays could leave a golden line on the surface of the earth as it revolves, they would mark the Tropic of Cancer. The sun is at its furthest northern declination, ascends the highest it is ever seen above our horizon, and rises and sets 23½° north of the east and west points. It seems now to stand still in its northern and southern course; and hence the name solstice (*sol*, the sun, *sto*, to stand). The days in the north temperate zone are longer than the nights. It is our summer, and the 21st of June is the longest day of the year. In the south temperate zone it is winter, and the shortest day of the year. The circle that separates day from night extends 23½° beyond the north pole; and if the sun's rays could in like manner leave a golden line on that day, they would trace on the earth the Arctic Circle. It is the noon of the long, six-months polar day. The reverse is true at the Antarctic Circle, and it is there the midnight of the long, six-months polar night.

*When we say that the earth is in Libra, we mean that a spectator placed at the sun would see the earth in that part of the heavens which is occupied by the sign of Libra. See *Zodiac* (Dictionary of Astronomical Terms).

The earth crosses the aphelion point the 1st of July, when it is at its furthest distance from the sun, which is then said to be in *apogee*. The sun, each day rising and setting a trifle further toward the south, passes through a lower circuit in the heavens. We reach the autumnal equinox the 22d of September. The sun being now on the equinoctial, if its vertical rays could leave a line of golden light, they would mark on the earth the circle of the equator. It is autumn in the north temperate zone, and spring in the south temperate zone. The days and nights are equal over the whole earth, the sun rising at 6 A.M., and setting at 6 P.M., exactly in the east and west where the equinoctial intersects the horizon.

The sun, after passing the equinoctial — "crossing the line," as it is called — sinks lower toward the southern horizon each day. We reach the winter solstice the 21st of December. The sun is now directly overhead 23½° south of the equator; and if its rays could leave a line of golden light, they would mark on the earth's surface the Tropic of Capricorn. It is at its furthest southern declination, and rises and sets 23½° south of the east and west points. It is our winter, and the 21st of December is the shortest day of the year. In the south temperate zone it is summer and the longest day of the year. The circle that separates day from night extends 23½° beyond the south pole; and if the sun's rays in like manner could leave a line of golden light, they would mark the Antarctic Circle. It is there the noon of the long six-months polar day. At the Arctic Circle the reverse is true; the rays fall 23½° short of the north pole, and it is there the midnight of the long six-months polar night. Here, again, the sun appears to us to stand still a day or two before retracing its course, and it is therefore called the winter solstice.

The earth reaches its perihelion about the 31st of December. It is then nearest the sun, which is, therefore, said to be in *perigee*. The sun rises and sets each day further and further north, and climbs up higher in the heavens at midday. Our days gradually increase in length, and our nights shorten in the same proportion. On the 21st of March the sun reaches the equinoctial, at the vernal equinox. He is overhead at the equator, and the days and nights are again equal. It is our spring, but in the south temperate zone it is autumn.

We are nearer the sun by 3,000,000 miles in winter than in summer. The obliqueness with which the rays strike the north temperate zone at that time prevents our receiving any special benefit from this favorable position of the earth. We notice that we do not have our greatest heat at the time of the summer solstice nor our greatest cold at the time of the winter solstice. After the 21st of June, the earth, already warmed by the genial spring days, continues to receive more heat from the sun by day than it radiates by night; thus its temperature still increases. On the other hand, after the 21st of December, the earth continues to become colder, because it loses more heat during the night than it receives during the day.

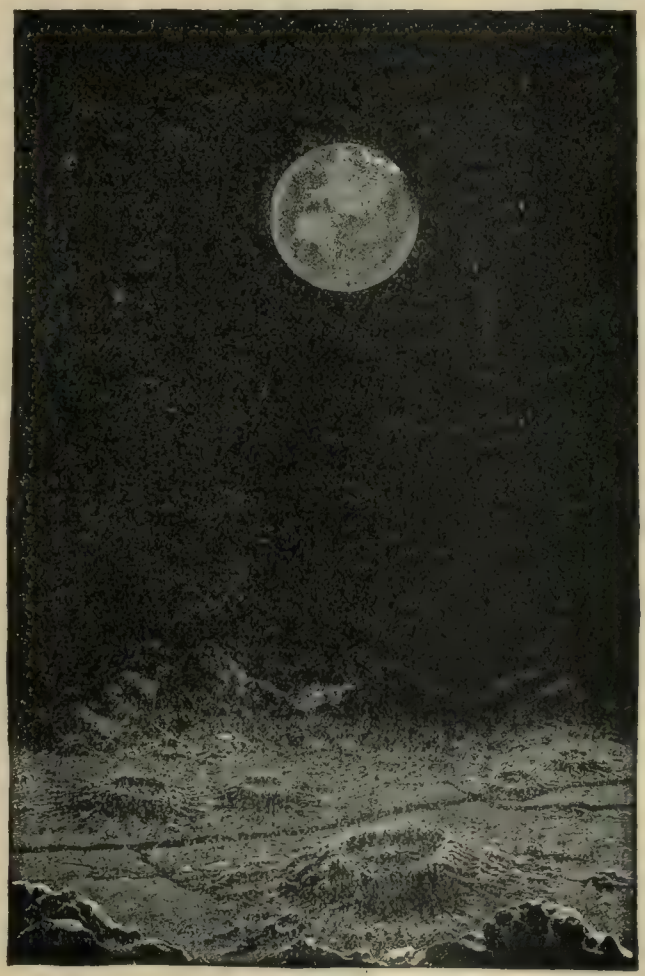


Fig. 11. The Moon by Earth-light.

As the sun is not in the center of the earth's orbit, but at one of its *foci*, that portion of the orbit which the earth passes through in going from the vernal to the autumnal equinox comprises more than one-half the entire ecliptic. On this account the summer is longer than the winter.

The velocity of the earth varies in different portions of its orbit. When passing from the vernal equinox to aphelion, the attraction of the sun tends to check its speed; from that point to the autumnal equinox, the attraction is partly in the direction of its motion, and so increases its velocity.

If the axis of the earth were perpendicular to the ecliptic, the sun would always appear to move through the equinoctial. He would rise and set every day at the same points on the horizon, and pass through the same circle in the heavens, while the days and nights would be equal the year round. There would be near the equator a fierce torrid heat, while north and south the climate would melt away into temperate spring, and, lastly, into the rigors of a perpetual winter.

If the equator were perpendicular to the ecliptic, odd results would follow. To a spectator at the equator, as the earth leaves the vernal equinox, the sun would each day pass through a smaller circle, until at the summer solstice he would reach the north pole, when he would halt for a time and then slowly return in an inverse manner. In our own latitude, the sun would make his diurnal revolutions in the way we have just described, his rays shining past the north pole further and further, until we were included in the region of perpetual day, when he would seem to wind in a spiral course up to the north pole, and then return in a descending curve to the equator.



Fig. 12. Telescopic View of the Full Moon.

The sun and moon appear flattened when near the horizon, because the rays from the lower edge pass through a denser layer of the atmosphere, and are, therefore, refracted about 4′ more than those from the upper edge. The effect of this is to make the vertical diameter appear about 4′ less than the horizontal, and so distort the figure of the disk into an oval shape.

The dim and hazy appearance of the heavenly bodies when near the horizon is caused not only by the rays of light having to pass through a larger space in the atmosphere, but also by their traversing the lower and denser part. The intensity of the solar light is so greatly diminished by passing through the lower strata, that we are enabled to look upon the sun at that time without being dazzled by his brilliant beams.

The glow of light after sunset, and before sunrise, which we term twilight, is caused by the refraction and reflection of the sun's rays by the atmosphere.

The diffused light of day is produced in the same manner as that of twilight. The atmosphere reflects and scatters the sunlight in every direction. Were it not for this, no object would be visible to us out of direct sunshine; every shadow of a passing cloud would be pitchy darkness; the stars would be visible all day; no window would admit light except as the sun shone directly through it, and a man would require a lantern to go round his house at noon.

The blue light reflected to our eyes from the atmosphere above us, or more probably from the vapor in the air, produces the optical delusion we call the sky. Were it not for this, every time we cast our eyes upward we should feel like one gazing over a dizzy precipice; while now the crystal dome of blue smiles down upon us so lovingly and beautifully that we call it heaven.

THE MOON.

"Fancy," says Lockyer, "a world without ice, cloud, rain, snow; without rivers or streams, and therefore without vegetation to support animal life; — a world without twilight or any gradations between the fiercest sunshine and the blackest night; — a world, also, without sound, for, as sound is carried by the air, the highest mountain on the airless moon might be riven by an earthquake inaudibly." If it were possible to reach the moon, as Jules Verne's travelers did, we should find a very irregular and corrugated

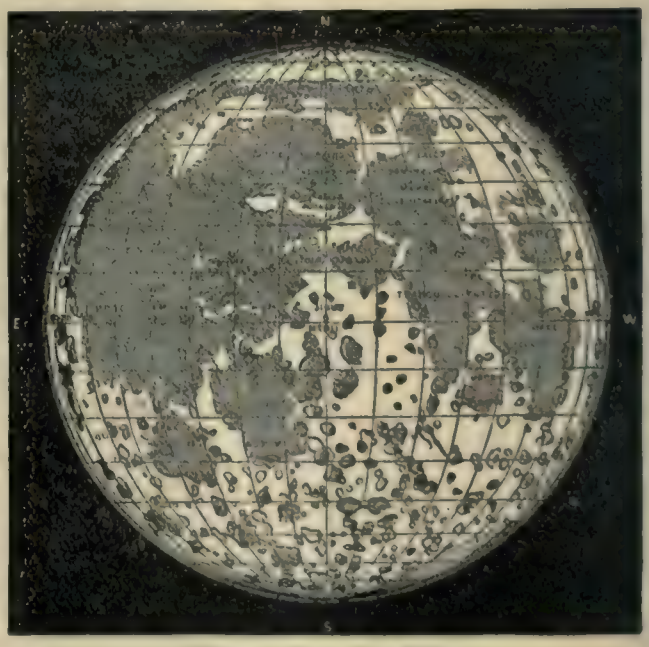


Fig. 13. A Map of the Moon.

surface — plains and mountains without water. There being no atmosphere, we should be able to see the stars in the daytime. The appearance of our earth from the moon, and the beauty of the stars in the unclouded and waterless space around the satellite, must be very grand, as depicted in a measure, in the illustration (Fig. 11).

When we look steadily at the full moon through a telescope we perceive upon its surface dark and light tracts, called "seas," though they are dried up now. Thus, we hear of the "Sea of

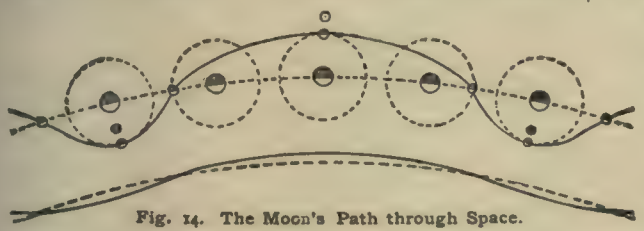


Fig. 14. The Moon's Path through Space.

Serenity," the "Sea of Storms" and the "Sea of Tranquility." The hill ranges extend for hundreds of miles, and the elevation reaches 30,000 feet, and even more. The so-called craters do not resemble volcanoes when viewed closely, but appear like basins or valleys surrounded by lofty hills. One great plain, called Copernicus, is more than fifty miles across.

The moon moves around us in *27d. 7h. 43m. 11.461s.* Its diameter is about 2,160 miles, and it is much less dense than our earth, and so the force of gravity is less there than here. Its mean distance from us is 238,833 miles. The moon goes through certain changes or phases every twenty-nine days or so; and while rotating on its own axis our satellite goes round the earth, so that we only see one side of the moon, inasmuch as the two motions occupy almost exactly the same length of time. So we generally see the same space of the moon, though at times there is a slight variation. This movement or swaying of the central point is called the moon's "libration," and is an optical effect, due to the inequalities in the motion of the moon in its orbit, and to the inclination of its equator and orbit to the ecliptic.

The Phases of the Moon.

The moon, as we have seen, revolves around the earth in the same time as she turns upon her own axis, and always presents one side to us when she appears. Any one can ascertain this if he will put a candle upon a round table, and walk round it facing the candle. The experimentalist will find that he will turn upon his own axis as well as turn around the table. Thus we shall see how the moon changes.

The time intervening between one "new" moon and another is *29d. 12h. 44m. 2s.*, and is termed a synodic revolution. This is longer than the sidereal revolution, because the earth is also moving in the same direction, and the moon has to make up the time the earth has got on in front, as it were. So the moon travels nearly thirteen times round the earth while the latter is going round the sun.

The revolutions of the moon have been a measurement of time for ages, and her varying appearances during lunation are always observed with interest. The illustration (Fig. 15) will assist us materially. The sun's rays fall in a parallel direction upon the earth and moon, and let us suppose that S is the sun in the diagram and T the earth; *c* at the various points is the moon, the capital letters, A, B, C, etc., indicating the planet as she appears from the sun, and the small letters showing how she appears to us from the earth. Let us suppose that the sun, earth and moon are in conjunction—that is, in a direct line. The phases C and G are the moon's "quadratures." At A we see the sun shining on the moon, but we only have the dark side. It is then "new moon." But by degrees, as she goes round in her orbit, we perceive a small crescent-shaped portion, lighted up by the sun at B and *b*. At *c'* we have the first quarter or half-moon, and so on to the last quarter.

The moon revolves round the earth in a changeable elliptical orbit, intersecting the ecliptic at certain points called *nodes*. When the moon is nearest to the earth she is said to be in *perigee;* when farthest from us she is in *apogee*. The line uniting these points is the line of *apsides*, the difference in distance being about 4,000 miles.

Eclipses.

The moon passes the sun periodically, and so, if she moved in the plane of the ecliptic, there would be eclipses of the sun

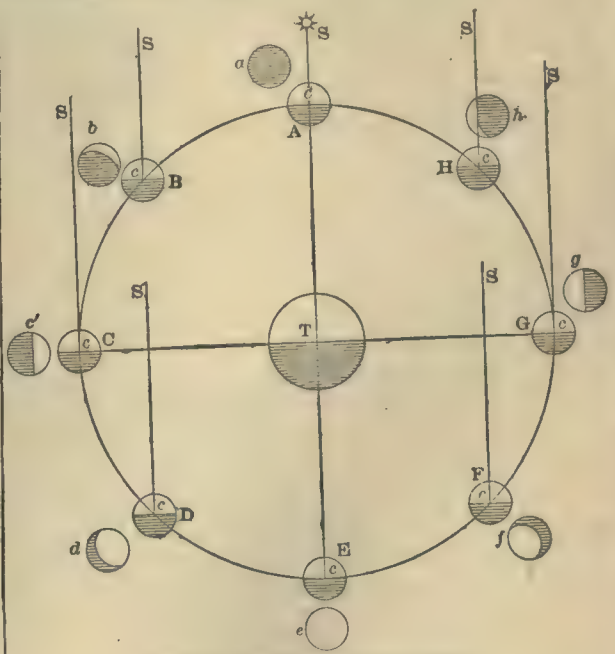


Fig. 15. The Phases of the Moon.

and moon twice a month; but, as the orbit is inclined a little, she escapes by moving north or south.

There are eclipses of the sun and of the moon. The former occur at the time of new moon, and the latter at full moon; and this will be at once understood when we remember that the sun is eclipsed by the moon passing between us and the

sun; and the moon is eclipsed because the *shadow of the earth* falls upon her when she is *opposite* the sun, and therefore "full."

There are total, partial, and annular eclipses. The last of these terms is derived from "annulus," a ring; for a ring of light is left around the dark portion eclipsed, and is only seen in solar eclipses. In one sense the eclipse of the sun is really an eclipse of the earth, because it is caused by the shadow of the moon falling upon the earth.

Various singular appearances always attend a total eclipse. Around the sun is seen a beautiful corona, or halo of light, like that which painters give to the head of the Virgin Mary. Flames of a blood-red color play round the disk of the moon; and, when only a mere crescent of the sun is visible, it seems to resolve itself into bright spots, interspersed with dark spaces, having the appearance of a string of bright beads.

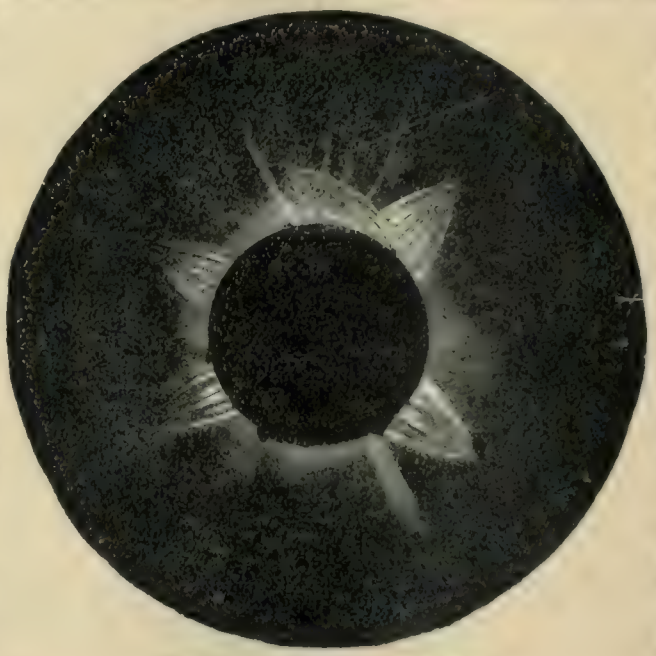


Fig. 15. The Corona as seen in 1857.

The Tides.

The ebb and flow of tidal waters depend upon the moon to a great extent. Twice every day we have the tides, twelve hours apart, and the flow and ebb are merely examples of the attraction of gravitation which is exercised on all bodies, whether liquid or solid. The tides may be compared to a great wave, which, raised by the moon's attraction, follows her in her course round the earth. The sun also aids in this effect, but as the moon is so much nearer the earth her influence is far greater. The tides are highest at the equator and lowest at the poles, because the tropics are more exposed to the lunar attraction.

MARS

Appears to the naked eye as a bright red star, rarely scintillating, and shining with a steady light, which distinguishes it from the fixed stars. Its ruddy appearance has led to its being celebrated among all nations. The Jews gave it the appellation of "blazing," and it bore in other languages a similar name. The orbit of Mars is exterior to the earth's, as is proved by his never appearing "horned," nor ever passing across the sun's disc. Therefore, no transits of Mars can take place as transits of Venus and Mercury. When in "opposition," or on the opposite side of us from the sun, Mars is at his brightest. This happened in September, 1877. He will come close again to us in 1892. Of all the planets Mars has the most eccentric orbit. He curls about, so to speak, in loops and curves, in a very irregular manner, and therefore his distance from the earth varies considerably.

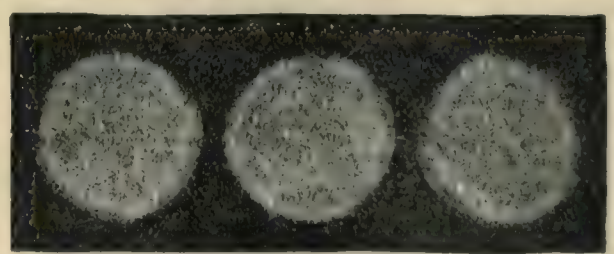


Fig. 17. The Rotation of Mars, as shown by the Movement of the Spots on its Disc.

Mars is most like the earth of all the planets, and its inhabitants—if, indeed, it is now inhabited—must have a beautiful view of us when the weather is fine, for we are so much larger. When examined with a good telescope, the seas and continents of Mars can be distinctly perceived. At the poles there appears to be a white or snowy region at varying periods, which would lead us to the conclusion that the atmospheric changes and the seasons are similar to our own; and as the inclination of the planet is nearly the same as the earth, this supposition may be accepted as a fact.

The seasons of Mars are not equal, in consequence of his wandering propensities, and winter is warmer up there than our winter, while summer is cooler than our summer. That there are clouds and an aqueous atmosphere surrounding the planet we learn from analysis and spectroscopic observation. Respecting the question of habitation, Richard Proctor says: "I fear my own conclusion about Mars is that his present condition is very desolate. I look on the ruddiness of tint as one of the signs that the planet of war has long since passed its prime. There are lands and seas in Mars, the vapor of water is present in his air, clouds form, rains and snows fall upon his surface, and doubtless brooks and rivers irrigate his soil, and carry down the moisture collected on his wide continents to the seas whence the clouds had originally been formed. But I do not think there is much vegetation on Mars, or that many living creatures of the higher types of Martian life as it once existed still remain. All that is known about the planet tends to show that the time when it attained that stage of planetary existence through which our earth is now passing must be set millions of years,

perhaps hundreds of millions of years ago. He has not yet, indeed, reached that airless and waterless condition, that extremity of internal cold, or in fact that utter unfitness to support any kind of life, which would seem to prevail in the moon. The planet of war in some respects resembles a desolate battle-field, and I fancy that there is not a single region of the earth now inhabited by man which is not infinitely more comfortable as an abode of life than the most favored regions of Mars at the present time would be for creatures like ourselves."

Mars is attended by two satellites, or moons, discovered in 1877—both being very small, their diameter not exceeding six miles, although late astronomers have reasoned that they must be three times as large.

JUPITER, THE GIANT PLANET,

Is thirteen hundred times larger than our earth. His inclination is very small, and he therefore enjoys very small changes of seasons. He has four satellites. Jupiter himself was well known to the ancients, but his moons were discovered by

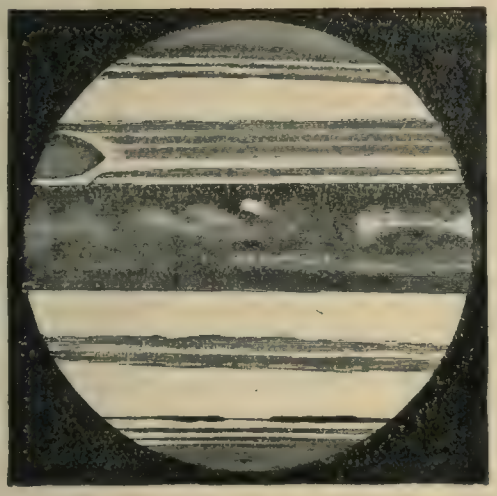


Fig. 18. Jupiter as shown by the Telescope.

Galileo. These moons were found to revolve around Jupiter in times varying from nearly two days to nearly sixteen days, according as they were at a less or greater distance from him. They were also found to have their times of eclipses and transits. They act with respect to Jupiter very much as the inner planets act with respect to the sun, for observation showed Galileo that the satellites sometimes appeared on one side of the planet, and at other times on the opposite side.

Jupiter is the largest of the planets, and only Venus is brighter. He revolves at a distance of 476,000,000 of miles from the sun, and his year is equal to nearly twelve of ours, while his day is scarcely ten hours long, showing a rapidity more than twenty times the rate of our earth. Jupiter, therefore, must have a very much greater diameter than the earth.

There is much less sunlight and heat found on Jupiter than upon earth, because he is so much farther from the sun than we are. There is but little difference in the length of his days and nights, which are each of about five hours' duration. At the poles the sun is visible for nearly six years, and then remains set for the same length of time. The seasons vary but slightly. Summer reigns near the equator, while the temperate regions enjoy perpetual spring.

When Jupiter is examined with the telescope it will be seen that he is crossed by belts of vapor; and when we consider the results of the spectrum analysis of the planet, we may fairly assume that Jupiter is in a very heated state, and that we cannot really perceive the actual body of the planet. There is an immense quantity of water thus surrounding Jupiter, and he seems to be still in the condition in which our earth was before geology grasps its state, and long ere vegetation or life appeared. The waters have yet to be "gathered together unto one place," and the dry land has yet to appear. Under these conditions we can safely assume that there are no inhabitants on the "giant planet." The belts or zones of Jupiter vary in hue, and the continual changes which are taking place in this cloud region tend to show that disturbances of great magnitude and importance are occurring.

It is useless to speculate upon what will happen in Jupiter when the disc is eventually cooled. The planet, we know, has not nearly reached maturity; the earth is in the full prime of its life, and the moon is dead and deserted. What the millions of years which must elapse before Jupiter has cooled may bring forth we need not try to find out. The earth will then, in all probability, be as dreary as the moon is now, and we shall have returned to dust.

The velocity of light was discovered by an attentive examination of the eclipses of Jupiter's moons, by Romer, a Danish astronomer, in 1617, who was led to discover the progressive motion of light. Before him, it had been considered instantaneous. He noticed that the observed times of the eclipses were sometimes earlier and sometimes later than the calculated times, according as Jupiter was nearest or farthest fromthe earth. His investigations convinced him that it requires about 16½ minutes for light to traverse the orbit of the earth. Romer's conclusion has since been verified by the phenomena of aberration of light.

SATURN

Is an immense globe, surrounded by a beautiful bright ring, or, rather, series of rings, and attended by eight moons. He appears to possess much the same constitution as Jupiter, but is enveloped in an even denser atmosphere. He revolves on an inclined axis, and has seasonal alterations of unequal length. The rings of Saturn are apparently broad, and flat, and thin, resembling roughly the horizon of a globe, and are supposed to be a close agglomeration of stars, or satellites, revolving around the planet, and encircling him in a belt. The two outermost rings are very bright, the inner ring being darker, and partially transparent, for the ball of Saturn can be perceived through it. The rings are not always so plainly seen as in the illustration (Fig. 19). Sometimes they appear as a mere line of light on each side of the planet. This occurs at the time of the equinox. By degrees, however, as they become

inclined, they appear broader. The inner ring may be formed of vapor, but the outer ones are of something more solid, as indicated by the shadows they cast upon the planet, and it casts upon them at certain times. Saturn possesses eight moons, seven of them revolving in orbits on the plane of the rings but one more inclined.

Saturn, on account of its distance, shines with a feeble, but steady, pale yellow light, which distinguishes it from the fixed stars. Its orbit is so vast that its movement among the constellations may be easily traced through one's lifetime. It requires two and a half years to pass through a single sign of the zodiac; hence, when once known, it may be easily found again.

As the earth and Saturn occupy different portions of their orbits, the distances between them at different times may vary 200,000,000 miles.

The light and heat of the sun at Saturn are only $\frac{1}{100}$ that which we receive. The axis of the planet is inclined from a perpendicular to the plane of its orbit about 31°. The seasons, therefore, are similar to those on the earth, but on a larger scale.

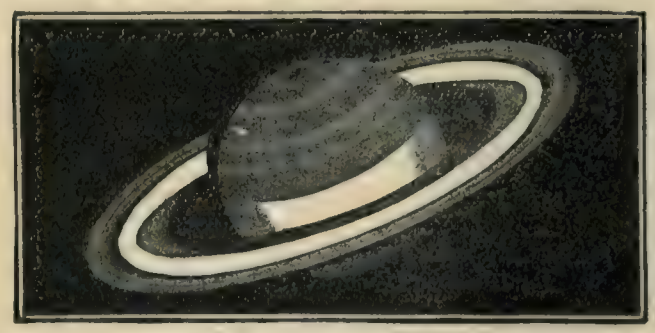


Fig. 19. Saturn and his Rings.

The sun climbs in summer about 8° higher above the horizon, and sinks correspondingly lower in winter. The tropics are 16° further apart, and the Arctic and Antarctic circles 8° further from the poles. Each of Saturn's seasons lasts more than seven of our years. There is about fifteen years' interval between the autumn and spring equinoxes, and between the summer and winter solstices. For fifteen years the sun shines on the north pole, and a night of the same length envelopes the south pole.

URANUS.

Uranus was discovered by Herschel, in 1781, and has been called after its discoverer, and sometimes the "Georgium Sidus." It revolves at an enormous distance from the sun—viz.: 1,753,000,000 of miles. It takes about eighty-four of our years (30,686 days) to go round the sun, and possesses four moons. It is very much larger than the earth—about four times the diameter, and forty times its volume. We can only speculate concerning its physical constitution, which is assumed to be similar to that of Jupiter, while the changes of temperature and seasons must vary immensely. Uranus has four moons, called Ariel, Umbriel, Titania and Oberon. The outer pair can be seen without much difficulty.

NEPTUNE

Is the far-off sentinel at the very outposts of the solar system. The existence of this planet was determined by calculation before it had been seen at all. Uranus was observed to be disturbed in his orbit, moving sometimes faster than at others; and even before Uranus had been discovered Saturn and Jupiter had been seen to be affected by some body in the system. Leverrier determined to ascertain the cause of this, and came to the conclusion that some other planet was influencing Uranus. The Newtonian theory here received a most convincing proof. While Leverrier was calculating, Mr. Adams, of Cambridge, leaped to the same conclusion, and wrote the result of his calculations to Professor Airy, and the planet was seen, but not reported upon. Meantime Leverrier published his calculations, and the observers at Berlin detected the new planet in September, 1846.

Very little can be said concerning Neptune, as its distance is too great for observation. It has one moon, which moves round the planet in 5 *d.* 21 *h.*, and is of great size.

THE ASTEROIDS, OR MINOR PLANETS.

The Asteroids are smaller planets circulating outside the orbit of Mars. They are all at distances from the sun ranging between 200,000,000 and 300,000,000 miles, the periods of sidereal revolution ranging from 1,100 to 3,000 days. Consequently their years are from three to nine times as long as ours. Nearly 325 of these minor planets have been discovered, and they are all very much smaller than the earth, some, indeed being only a few miles in diameter.

In olden times astronomers noticed a very considerable gap between Mars and Jupiter, which was remarkable when the regular progression of the distances between the planets was remembered. The discovery of CERES in 1801 led to other discoveries, and now we have nearly two hundred asteroids. PALLAS was discovered in 1802; JUNO, 1804; VESTA, 1807; ASTRÆA, 1845, and since 1848 every year has added to the list.

The hypothesis that all these asteroids are fragments of one large planet which has been destroyed was started by Olbers; and in confirmation of this view it has been determined that the asteroids have essentially the same character. The orbits of these minor planets are different from the larger "wanderers," and cross each other, so that a collision may one day ensue.

Vesta is the first in order in the system, and revolves in 1,325 days, at a mean distance of 225,000,000 of miles from the sun. Juno and Ceres take each about four of our years to revolve in their orbits, at greater distances still, averaging 260,000,000 of miles. Pallas and Ceres are most alike in their periods and distance from the sun. The principal asteroids are only about 300 miles in diameter.

METEORS.

Meteors are small erratic bodies rushing through the planetary system, and, getting hot in the process, appear in the atmosphere surrounding our earth as "shooting stars." Some of these falling bodies have reached the earth, and such are

called "aerolites" or "meteorites." Numbers, of course, are burnt up before they reach us, and who can tell what destruction such a catastrophe may represent, or whether it be or be not an inhabited world which has thus been plunged to destruction by fire? They are of a metallic or stony nature. On certain nights in August and November it has been calculated that these meteors

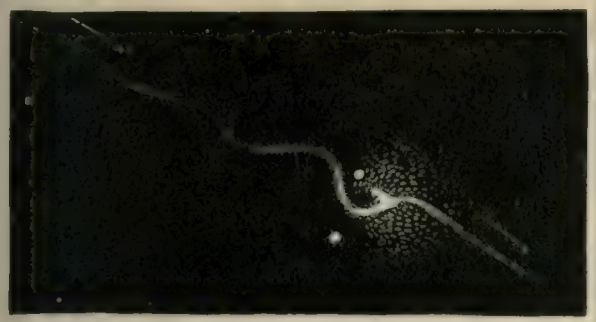


Fig. 20. An Exploding Meteor.

will appear. They fall from certain constellations, after which they are named; as Leonides, from Leo, in the November displays.

The star showers sometimes present the appearance of a beautiful display of rockets. Millions of them rush round the sun, and when, as occasionally happens, our earth comes near them, we have a grand display of celestial fireworks.

It is estimated that the average number of meteors that traverse the atmosphere daily, and which are large enough to be visible to the eye on a dark, clear night, is 7,500,000; and if to these the telescopic meteors be added, the number will be increased to 400,000,000. In the space traversed by the earth there are, on the average, in each volume the size of our globe (including its atmosphere), as many as 13,000 small bodies, each one capable of furnishing a shooting star visible under favorable circumstances to the naked eye.

COMETS.

It has been lately suggested that there is a great degree of affinity between comets and meteors — in fact, that a comet is merely an aggregation of meteors. Comets have been supposed to be bodies of burning gas. Their mass is very great, and their brilliant tails are many millions of miles in extent. In their orbits, they differ greatly from the planets. While the latter are direct in their wanderings, comets are most irregular and eccentric. When first seen, the comet resembles a faint spot of light upon the dark background of the sky. As it comes nearer, the brightness increases and the tail begins to show itself.

The term *comet* signifies a hairy body. A comet consists usually of three parts: the nucleus, a bright point in the center of the head; the coma (hair), the cloud-like mass surrounding the nucleus; and the tail, a luminous train extending generally in a direction from the sun.

It is not understood whether comets shine by their own or by reflected light. If, however, their nuclei consist of white-hot matter, a passage through such a furnace would be anything but desirable or satisfactory.

It is to Halley that the discovery of the elliptical orbit of comets is due. A comet had been observed in 1607, and Halley made a calculation that it would reappear in 1757. The expected visitor passed the perihelion in 1759. This comet, on its appearance at Constantinople, is said to have caused much consternation, and Christians regarded it as a "sign," for the Turks had just then captured Constantinople and were threatening Europe. Halley's comet was last observed in 1835.

Encke's, Biela's and the comets of 1843 and 1858 are comparatively recent. Others came in 1861, 1874, 1883. In 1881 two comets appeared. Some comets of antiquity were very remarkable, and are reputed to have equaled the sun in magnitude. One tail is usually supposed to be the distinguishing mark of a comet, but in 1774 one appeared with six tails, arranged something like a fan. Sometimes the tail is separated from the head. Some comets appear at regular intervals, and their approach can be determined with accuracy. Of course we only see those which are attracted by the sun, or those which

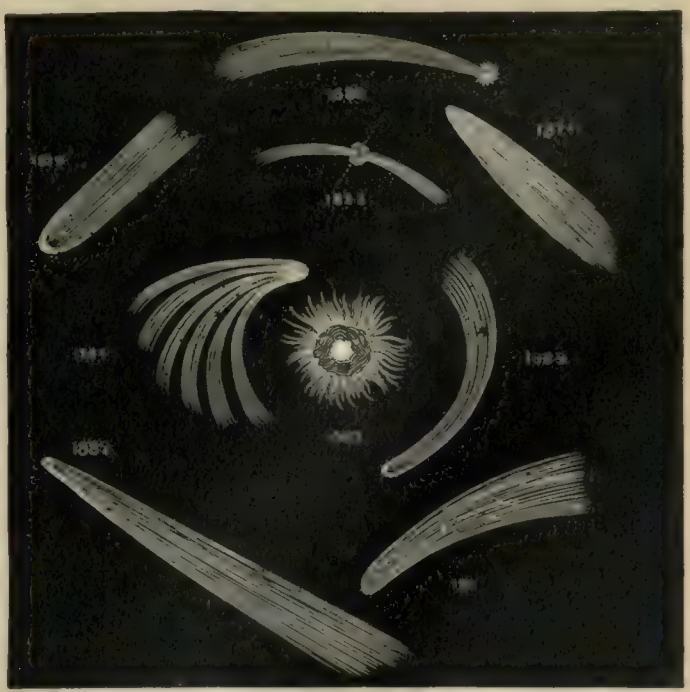


Fig. 21. Various Forms of Comets.

revolve in the solar system. There must be thousands of other comets which we never see at all.

The comet of 1680 pursued its course for two months at a

velocity of 800,000 miles an hour. The tail was estimated to extend 123,000,000 of miles, and a length of 60,000,000 of miles was emitted in two days. This comet appeared B.C. 34, and again at intervals of about 575 years, and will reappear about 2255.

Biela's comet was the cause of much anxiety in 1832, for a collision with the earth was feared. A month, however, intervened between the period at which the comet was expected at a certain place in the system and the earth's arrival at that spot, and so the comet was 60,000,000 miles away when the collision was apprehended. What the effect of such a collision would



Fig. 22. Orbits of the Comets.

be, cannot be said. Wonderful atmospheric phenomena and increased temperature would, however, certainly result. If comets, as is believed, consist partly of solid particles, a collision would certainly be unpleasant; but their weight is probably a mere nothing compared to their vapory volume, which must be enormous. That the tails must be of a very attenuated medium, is evident, as the stars can be seen through them, although a very thin cloud will obscure a star.

THE ZODIACAL LIGHT.

This phenomenon, which may be seen in the western horizon on any clear winter or spring evening, after twilight, and also in the eastern horizon, just before daybreak, in summer or autumn, consists of a faint luminosity, extending out on each side of the sun, and lying nearly in the plane of the ecliptic. It can generally be traced to about 90 degrees from the sun, growing fainter as it rises above the horizon. In a very clear tropical atmosphere, however, it forms a complete ring, and may be traced all the way across the heavens. These appearances seem to indicate that it is due to a lens-shaped appendage surrounding the sun and extending a little beyond the earth's orbit. Various attempts have been made to explain the phenomenon, but the most probable theory is that it is due to an immense number of meteors revolving round the sun, and which lie mostly within the earth's orbit, each reflecting a sensible portion of sunlight, but far too small to be separately visible.

THE FIXED STARS.

Those stars which shine with a clear, distinct light, and visibly change their position with respect to the others, are called *planets*, and these have been fully described according to their order in our solar system. Those stars which apparently remain immovable, and shine with a shifting, twinkling light, are termed *fixed stars*, although it is now known that they also are in motion. Arcturus, for instance, moves at the rate of fifty miles a second, and others less, but only the rates of a few are known.

In the daytime we cannot see the stars because of the superior light of the sun; but with a telescope they can be traced, and an astronomer will find certain stars as well at noon as at midnight. When looking at the sky from the bottom of a deep well or lofty chimney, if a bright star happens to be directly overhead, it can be seen with the naked eye, even at midday.

In reality, we *never see the stars*. This assertion seems paradoxical, yet it is strictly true. So far are the stars removed from us that we see only the light they send, but not the surface of the worlds themselves.

The number of the stars is beyond our calculation. Those visible only in the telescope amount to millions, and are called telescopic stars. The stars visible to the unaided eye amount to about six thousand. There are more visible in the southern than in the northern hemisphere. The magnitudes of the stars range in classes according to the brightness of the stars observed, for this is really the test from the first magnitude to the sixth; after that the telescopic stars are seen up to the fifteenth or sixteenth. We can only see about three thousand stars at one time from any place, although, as remarked above, many millions may be observed with a good telescope, and as many more, probably twenty millions, are invisible.

The Motion of the Heavenly Bodies.

Attentive observation of the starry heavens will convince us that all the visible stars describe circles which are the smaller the nearer the stars are to a certain point of the heavens, P (Fig. 23). Near this point there is a tolerably bright star, the *Pole-star*, which appears to the eye as always occupying the same position. A line, P P′, drawn from the star through the center of the earth, C, represents the axis



Fig. 23. The Celestial Axis.

around which all the heavenly bodies perform their apparent motions. The part of the celestial axis, PP′, passing through the earth, is the earth's axis; the North Pole, p, is on the same side as the Pole-star, and the South Pole, p', is on the opposite side. Thus pp' is the earth's axis, and the line aq, the plane of which cuts the earth's axis at right angles, is the equator, equally distant from both poles. Now if we suppose the plane of the equator to be extended to the heavens, we have the celestial equator, A Q, or *equinoctial*, dividing the heavens into the northern and southern hemispheres. The equinoctial cannot be actually described or made visible, but its line of direction may be imagined by observing the stars through which it passes.



Fig. 24. The Constellation Ursa Major, or the Great Bear, containing the Great Dipper, or Charles' Wain.

By assigning to an observer stations on the earth's surface differing in relation to the earth's axis, the aspects of celestial phenomena will be essentially modified. One of these stations may be supposed to be, for example, at one of the two poles, at p, or at any point of the equator, as at q, or, finally, on any portion of the earth's surface which lies between the pole and the equator, as, for example, o.

The Constellations.

At a very early period in the history of astronomy the observers of the heavens grouped stars together in fancied resemblances to men and animals, and these *constellations*, as they are termed, are combinations of fixed stars. Many of the constellations are familiar by name to everybody. Illustrations of some of the more interesting are given. We shall find that the forms are in greater part due to the imagination of the ancients, and do not bear out our ideas of the animals, etc., they are supposed to represent, while at the same time they cross and recross with other constellations in the skies in a very puzzling manner. The twelve maps of the stars presented in subsequent pages will, however, enable us to gain a knowledge of the constellations as they appear on the sky on any night during the year.



Fig. 25. Virgo (The Virgin).

The arrangement of the constellations is plunged in the obscurity of ages, but B.C. 370 there were forty-five thus grouped. The brighter stars have all proper names, but most of the names have dropped entirely out of astronomical use, though many are popularly retained. The brighter stars are now generally designated by the letters of the Greek alphabet — *alpha*, *beta*, *gamma*, *delta*, etc.,—to which is appended the genitive of the Latin name of the constellation. Thus Aldeboran would be designated as *Alpha Tauri*. When the letters of the Greek alphabet are exhausted, those of the Roman alphabet are employed. The fainter stars in a constellation are usually designated by some system of numbers.

Double and Multiple Stars.

Many stars which appear single to the naked eye are really double when seen through the telescope, that is, they are composed of a pair of stars lying side by side. Pairs of stars are not considered double unless the components are so near together that they both appear in the field of view when examined with a telescope. When what appears as a single star is resolved into more than two components by the telescope, it is called a multiple star.

New and Variable Stars.

There are many stars which undergo changes of brilliancy, sometimes slight, but occasionally very marked. These changes, in some cases, are apparently irregular, and in others periodic. All such stars are said to be variable. Algol, in the constellation Perseus, is a variable star, whose period is now known to be 2*d*. 20*h*. 49 *m*. Mira, in the constellation Cetus, is generally invisible, but at intervals of about eleven months it shines forth as a star of the second or third magnitude. The star η of the constellation Argo (*Eta Argus*), in the southern hemisphere, is perhaps the most remarkable variable star in the heavens. It was first observed by Sir John Herschel, while at the Cape of Good Hope. He says: "On the 16th of December, 1837, my astonishment was excited by the appearance of a new candidate for distinction among the very brightest stars of the first magnitude in a part of the heavens where I was certain that no such brilliant object had ever been seen. * * * I finally became satisfied of

its identity with my old acquaintance *Eta Argus*, although its light was nearly tripled." It continued to increase until January 2, 1838, then faded a little till April following. In 1842 and 1843 it blazed up brighter than ever, and in March of the latter year was second only to Sirius. During the twenty-five years following it slowly but steadily diminished; in 1867 it was barely visible to the naked eye, and the next year it vanished entirely from the unassisted view, and has not yet begun to recover its brightness.



Fig. 26. Orion and Taurus.

New or temporary stars are such as have suddenly appeared, and even become very brilliant, and then faded away and disappeared. They are now classified by astronomers among the variable stars, their changes being of very irregular and fitful character. In 1572 an apparently new star appeared in Cassiopeia, and was first seen by Tycho Brahé on November 11, when it had attained the first magnitude. It became rapidly brighter, rivaling Venus in splendor, so that good eyes could discern it in full daylight. In December it began to wane, and in the following May it had disappeared entirely. Kepler's star, first seen in October, 1604, in Ophiuchus, began to fade in the following winter, but remained visible throughout 1605, disappearing entirely early in 1606. It was noted for its brilliant scintillation. Astronomers suppose that this star also appeared in 393, 798 and 1203, which would make it a variable star with a period of a little over 400 years. In May, 1866, a star of the second magnitude suddenly appeared in Corona Borealis, and this is the most striking case of the kind in recent times.



Fig. 27. Coma Berenices (Berenices Hair).

Distance of the Stars.

Such is the distance of the stars that only in a comparatively few instances has any displacement of these bodies been detected when viewed from opposite points of the earth's orbit—that is, from points 185,000,000 miles apart—and then only by the most careful and delicate measurement. Half of the above displacement, or the displacement of the star as seen from the earth instead of the sun, is called the *parallax* of the star. In no case has a parallax of one second as yet been discovered. The distance of a star whose parallax is one second would be 206,265 times the distance of the earth from the sun, or about 19,000,000,000,000 miles. It is quite certain that no star is nearer the earth than this. Light has a velocity which would take it seven and a half times around the earth in one second; but it would require more than three years to reach us from the distance named. If the Almighty, in his inscrutable wisdom, should blot all the stars out of existence, it would be more than three years before we should miss a single one. The star α in the constellation of the Centaur is supposed to be the nearest of the fixed stars, and it is estimated that it would take its light about three years and a half to reach us. It has also been estimated that it would take light over 16 years to reach us from Sirius, about 18 from Vega, about 25 from Arcturus and over 40 from the Pole-star. The stars named, however, are comparatively near to us, and there are many so far removed that their light requires a thousand years to reach the earth.

Proper Motion of the Stars.

The discovery of the real motion of the stars, called their "proper motion," is due to Halley. He noticed that three very bright stars, Sirius, Aldeboran and Arcturus, were not in the places assigned to them. The stars have come to be universally denominated as *fixed* because they seem to retain their relative positions from year to year. Although moving at the rate of many miles a second, their distance is so enormous that, in the majority of cases, it would be thousands of years before this rate of motion would produce a sufficient displacement to be noticeable to the unaided eye. In the course of ages, however, a marked change in the configuration of the stars will be produced.



Fig. 28. Arcturus and Bootes.

The stars in all parts of the heavens are found to move in all directions, and with all sorts of velocities. When, however, their motions are averaged, there is found to be an apparent proper motion common to all the stars. Those in the neighborhood of Hercules appear to be approaching us, and those in the opposite part of the heavens appear to be receding from us. In other words, all the stars appear to be moving

away from Hercules and towards the opposite part of the heavens.

Astronomers hold that this apparent common motion of the stars is due to the real motion the sun and the planets of his system through space. Whether this motion of the sun is in a straight line or around some distant center, has not been determined, but it is estimated that our great luminary moves along his path at the rate of about 150,000,000 miles a year.



Fig. 29. Canes Venatici (The Hunting Dogs).

In some cases, groups of stars, probably forming connected systems, have a common proper motion, entirely different from that of the stars around and among them. The most remarkable instance of this kind occurs in the constellation Taurus. Proctor has shown that five of the seven stars forming the Great Dipper have a common proper motion, and he proposes for this phenomenon the name of *Star-drift*.



Fig. 30. Leo (The Lion).

NEBULÆ AND STAR-CLUSTERS

Are numerous in the heavens. The most important are those in Orion and in Andromeda. But there are other very beautiful "patches" of luminous matter, or cloud appearances, composed of stars invisible to the naked eye. There must be thousands of these star-clouds.

The nebulæ present the appearance of various forms — circular, elliptical, annular and spiral. Sometimes one or more minute stars are enveloped in a nebulous haze, and are hence called nebulous stars. The great nebula of Andromeda is one of the few that are visible to the naked eye. One can see at a glance that it is not a star, but a mass of diffused light, and it has sometimes very naturally been mistaken for a comet. Its spectrum suggests that it is really an immense star-cluster, so distant that the highest telescopic power cannot resolve it, yet in the largest telescopes it looks more like a gas than in those of moderate size.

The great nebula of Orion, surrounding the middle star of the three forming the sword, has above all others excited the wonder of observers. In its center are four stars, easily distinguished by a small telescope, together with two smaller ones requiring a nine-inch telescope to be well seen. Besides these, the whole nebula is dotted with stars. A good eye will perceive that what appears as a single star, instead of looking like a bright point, has a hazy appearance, due to the surrounding nebula. Huyghens first described the object in 1659. He says: "There is one phenomenon among the fixed stars worthy of mention, which, so far as I know, has hitherto been noticed by no one, and indeed cannot be well observed except with large telescopes. In the sword of Orion are three stars quire close together. In 1656, as I chanced to be viewing the middle one of these with the telescope, instead of a single star, twelve showed themselves (a not uncommon circumstance). Three of these almost touched each other, and with four others shone through a nebula, so that the space around them seemed far brighter than the rest of the heavens, which was entirely clear, and appeared quite black; the effect being that of an opening in the sky, through which a brighter region was visible."

The Nebular Hypothesis.

What is termed the *Nebular Hypothesis* was put forward by Laplace, and by it he endeavored to account for the regular development of the stellar system, which is supposed to have originated from an immense nebular cloud. This immense mass would rotate and contract, and the outer portions would separate and develop into rings like Saturn's rings. Then the rings break into separate portions, and each portion condenses into a planet, or the small "bits" travel round the sun like asteroids, and in this manner various systems were formed. This theory was considered to be quite exploded when stars were discerned in nebulæ by the more recent telescopes; but then the spectroscope came to our aid, and it was discovered that there were some nebulæ which are simply masses of glowing gas or aggregations of stones which are dashing against each other in so forcible a manner as to produce heat and luminosity.

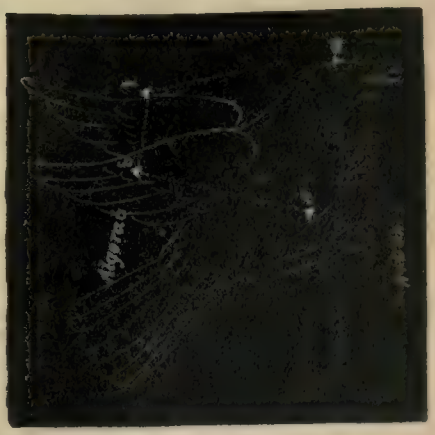


Fig. 31. Corvus (The Crow).

Proctor has put forward a hypothesis that the star or meteor showers are the original cause of the sidereal system, and that this rain of meteors has fallen for all time, gradually consolidating into orbs.

THE MILKY WAY

Is a whitish, vapory-looking belt, and is composed of multitudes of millions of suns, of which our own sun itself is one, so far removed from us that their light mingles and makes only a fleecy whiteness. Philosophers have frequently discoursed upon this phenomenon, but all statements must remain more or less speculative. From Kepler's to the present time astronomers have been considering the Milky Way, but an actual knowledge is still beyond us. It is agreed, however, that the galaxy is not a continuous stream, but a series of luminous patches, most extraordinary aggregations of stars, which it is not only impossible to count, but each of which appears to be independent of the others. "The sidereal system," says Proctor, in his *Universe of Stars*, "is altogether more complicated, altogether more varied in structure than has hitherto been supposed. Within one and the same region co-exist stars of many orders of real magnitude, the greatest being thousands of times larger than the least. All the nebulæ hitherto discovered, whether gaseous or stellar, irregular, planetary, ring-formed, or elliptic, exist within the limits of the sidereal system. They all form part and parcel of that wonderful system whose nearer and brighter parts constitute the glories of our nocturnal heavens."

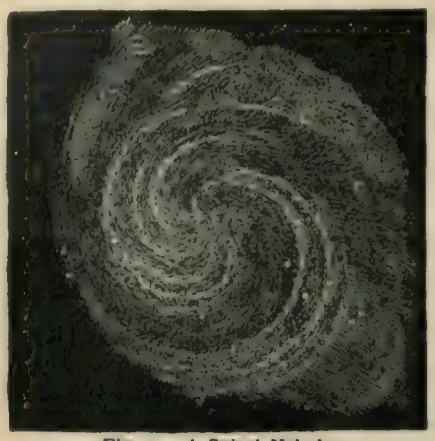


Fig. 32. A Spiral Nebula.

And a little reflection will show how true this is. Not very long ago in the world's life the solar system was supposed to consist of one sun with a few planets wandering around him. Then some more were found, and they were called "satellites." For a long time man fancied he had reached the "ultima thule" of astronomy in these depths; but the whole idea was changed when it was discovered that beyond Mars there lie the asteroids and the host of bodies in this solar system which we cannot do more than allude to. Then when we consider this "sun" of ours, which we think so enormous, and which keeps in subjection and illuminates so many heavenly bodies, and when we reflect that there are in space, and visible, stars many times larger than our ruling orb, each a sun, and that our sun would, if placed where the great Sirius glows, be but a speck in the firmament, and his system invisible to our eyes, we may well wonder at the magnitude of the subject and bow down before the wisdom and power of Him "at whose sight all the stars hide their diminished heads."

A DICTIONARY OF ASTRONOMICAL DEFINITIONS.

Aphelion. That point of a planet or comet's orbit which is most distant from the sun; the opposite point is called the *perihelion*.

Apogee. The point of a planet's orbit farthest from the earth. (Generally used only when speaking of the moon.)

Apsides (plural of *Apsis*.) The two points of an orbit which are respectively the greatest and least distance from the central body.

Axis. A real or imaginary straight line on which a body revolves or is supposed to revolve.

Azimuth. An arc of the horizon intercepted between the meridian of the place and a vertical circle passing through the center of any object. See *Nadir and Zenith*.

Celestial Globe. An artificial globe representing the constellations and the signs of the Zodiac in their places in the heavens.

Celestial Sphere. The blue arch of the sky as it appears spread above us.

Circumference. The line that goes round or encompasses a circular figure.

Colures. Two circles dividing the ecliptic into four equal parts, and making the seasons. The "equinoctial colure" passes through the equinoxes at Aries and Libra. The other, north and south, is the "solstitial colure."

Conjunction. Planets are in conjunction with each other when in the same sign and degree. A planet with the sun between it and the earth is in conjunction with the sun.

Declination. The distance of the heavenly bodies from the equinoctial measured as a meridian. In other words, latitude upon a celestial globe. The *Tropics* indicate the limits of the sun's declination.

Degree. The 360th part of the circumference of a circle.

Diameter. A right line passing through the center of a circle or sphere.

Disc. The apparently flat surface of a planet.

Diurnal. Constituting the measure of a day. *Diurnal arc*, the arc described by the sun during the daytime or while above the horizon. *Diurnal circle*, the apparent circle described by a celestial body in consequence of the earth's rotation.

Ecliptic. The earth's orbit about the sun, or the sun's apparent path through the heavens. The sun, of course, does not actually move, and therefore the track, or supposed circle, is really the earth's motion observable from the sun. When the moon is near this circle eclipses happen. The ecliptic cuts the equinoctial at an angle of 23° 28′, one-half being to the north and the other to the south of the equinoctial. The poles of the ecliptic are the points where the axis of the earth's orbit meets the celestial sphere.

Elliptical. Oval or oblong, with rounded ends.

Epicycle. A circle in the center of a greater circle.

Equator. An imaginary great circle on the earth's surface, everywhere equally distant from the two poles and dividing the earth into two hemispheres. The *equator of the heavens* is a great circle of the celestial sphere, coincident with the plane of the earth's equator, and called the *equinoctial*.

Equinoctial. The plane of the equator extended to the heavens. When the sun appears in that line the days and nights are of equal duration—12 hours each. This occurs about the 21st of March and the 23d of September. The term *equinoctial* is from the two Latin words *equaes*, equal, and *nox*, night.

Equinoxes. The points where the equinoctial and the ecliptic (the sun's apparent path through the heavens) intersect. The *vernal equinox* is the place where the sun crosses the equinoctial, commonly called "crossing the line," in going north, which occurs about the 21st of March. The *autumnal equinox* is the place where the sun crosses the equinoctial in going south, which occurs about the 21st of September.

Horizon. The *rational horizon* is the great circle passing through the center of the earth, separating the visible from the invisible heavens. The sensible (apparent) horizon is the small circle where the earth and sky seem to meet. It is parallel to the rational horizon, but distant from it the semi-diameter of the earth. No two places have the same sensible horizon.

Latitude. The distance from the ecliptic at a right angle north or south. Parallels of latitude are familiar circles parallel to the equator. Latitude and longitude upon a celestial globe are known respectively as "declination" and "right ascension."

Longitude. The distance in degrees, reckoned from the vernal equinox, on the ecliptic, to a circle at right angles to it passing through the heavenly body whose longitude is designated.

Lunar. Relating to the moon.

Lunation. The period of a synodic revolution of the moon, or the period from one new moon to the next.

Meridians. Circles passing through the poles at right angles to the equinoctial. Every place is supposed to have a meridian, but astronomers apply only twenty-four to the heavens, and they represent the sun's, or the planets', "movements" every hour—15° being one hour, 360° being 24 hours.

Nadir and **Zenith.** The poles of the horizon. The zenith is the point directly overhead, and the nadir the one directly under foot. *Azimuth circles* are circles drawn through these points.

Nocturnal. Relating to night.

Nodes. The opposite points of a planet where its orbit cuts the ecliptic or the earth's orbit.

Occident. The western quarter of the hemisphere.

Occultation. The hiding of a heavenly body from sight by the intervention of some other of the heavenly bodies.

Opposition. A planet with the earth between it and the sun is in opposition.

Orbit. The path described by a planet revolving round the sun. The *plane* of the orbit is an imaginary surface cutting through the center of the sun and the planet and extending to the stars. The inclination of an orbit is the plane of the orbit with reference to the plane of the earth.

Orient. The part of the horizon where the sun first appears in the morning.

Orrery. An apparatus illustrating, by means of small balls mounted on rods and moved by wheelwork, the size, motions, positions, orbits, &c., of the bodies of the solar system.

Oscillation. Moving backward and forward, or swinging like a pendulum; vibration.

Parallax. The difference between the position of a body as seen from some point on the earth's surface and its position as seen from some other conventional point, as the earth's center or the sun.

Parallel. A line which, throughout its whole extent, is equidistant from another line.

Parhelion. A mock sun or meteor, appearing in the form of a bright light near the sun, and sometimes tinged with colors like the rainbow, with a luminous train.

Penumbra. The shadow cast, in an eclipse, where the light is only partly cut off by the intervening body; the space of partial illumination, between the *umbra*, or perfect shadow, and the light.

Perigee. The opposite of *apogee*.

Perihelion. That point in the orbit of a planet or comet in which it is nearest to the sun.

Radius Vector. A line drawn from a planet to the sun, wherever the planet may be.

Right Ascension. Corresponds to "longitude" on a celestial globe.

Sidereal. "Measured by the apparent motion of the stars. See *Time*.

Sign. The twelfth part of the ecliptic or zodiac. See *Zodiac*.

Solstices. The points in the ecliptic at which the sun is furthest from the equator, north or south, namely, the first point of Cancer and the first point of Capricorn, the former, about the 21st of June, being called the summer solstice, and the latter, about the 21st of December, the winter solstice.

Spectroscope. An optical instrument used in determining the physical constitution of the heavenly bodies by analyzing their light.

Sphere. 1. An orb, or star. 2. The apparent surface of the heavens, which seems to the eye spherical, and in which the heavenly bodies appear to have their places.

Time. "Apparent" time is indicated by the sun; "sidereal" time by the stars. Mean time is that marked by a perfect clock, giving every day in the year equal length. A sidereal day is the exact interval of time in which the earth revolves on its axis. It is found by marking two successive passages of a star across the meridian of any place. This so absolutely uniform that the length of the sidereal day has not varied 1-100 of a second in 2,000 years. The sidereal day is divided into twenty-four equal portions, which are called sidereal hours, and each of these into sixty portions, termed sidereal minutes, etc. A solar day is the interval between two successive passages of the sun across the meridian of any place. If the earth were stationary in its orbit, the solar day would be of the same length as the sidereal; but while the earth is turning around on its axis, it is going forward at the rate of 360° in a year, or about 1° per day. When the earth has made a complete revolution, it must, therefore, perform a part of another revolution through this additional degree, in order to bring the same meridian vertically under the sun. One degree of diurnal revolution is about equal to four minutes of time; hence, the solar day is about four minutes longer than the sidereal day. The civil day extends from midnight to midnight. The present method of dividing the day into two portions of twelve hours each, was adopted by Hipparchus, 150 years B.C., and is now in general use over the civilized world. Until recently, however, very many nations terminated one day and commenced the next at sunset. Under this plan, 10 o'clock on one day would not mean the same as 10 o'clock on another day. The Puritans commenced the day at 6 P.M. The Babylonians, Persians, and modern Greeks begin the day at sunrise.

Transit. 1. The passage of a smaller heavenly body across the disc of a larger; as of Venus or Mercury across the sun's disc. 2. The passage of a body over the meridian of a place, or through the field of a telescope.

Vertical. Planets are vertical when directly overhead.

Zenith. See *Nadir*.

Zodiac. A girdle entending 8° on each side of the ecliptic, in which space of 16° the planets move. The zodiac is divided into twelve parts of 30° each, called the "Signs." Their names are as under written:

NORTHERN SIGNS.

Spring.

Aries, the Ram, March.
Taurus, the Bull, April.
Gemini, the Twins, May.

Summer.

Cancer, the Crab, June.
Leo, the Lion, July.
Virgo, the Virgin, August.

SOUTHERN SIGNS.

Autumn.

Libra, the Balance, September.
Scorpio, the Scorpion, October.
Sagittarius, the Archer, November.

Winter.

Capricornus, the Goat, December.
Aquarius, the Waterbearer, January.
Pisces, the Fishes, February.

The signs are reckoned from the point of intersection of the ecliptic and equator at the vernal equinox. The names were originally the names of the constellations occupying severally the divisions of the zodiac, by which they are now retained. In consequence of the precession of the equinoxes, however, the signs have, in process of time, became separated about 30 degrees from these constellations, and each of the latter now lies in the sign next in advance, or to the east of the one which bears its name. The constellation Aries now lies, for instance, in the sign Taurus, etc.

How to Read the Sky.

Half-Hours with the Stars: A Plain and Easy Guide to the Knowledge of the Constellations.

WITH TWELVE MAPS OF THE HEAVENS, TRUE FOR EVERY YEAR.

By RICHARD A. PROCTOR, B.A., F.R.A.S.

IT is very easy to gain a knowledge of the stars, if the learner sets to work in the proper manner. But he commonly meets with a difficulty at the outset of his task. He provides himself with a set of the ordinary star-maps, and then finds himself at a loss how to make use of them. Such maps tell him nothing of the position of the constellations on the sky. If he happen to recognize a constellation, then, indeed, his maps, if properly constructed, will tell him the names of the stars forming the constellation, and also he may be able to recognize a few of the neighboring constellations. But when he has done this, he may meet with a new difficulty, even as respects this very constellation. For if he look for it again some months later, he will neither find it in its former place, nor will it present the same aspect,—if, indeed, it happen to be above the horizon at all.

It is clear, then, that what the learner wants is a set of maps specially constructed to show him in what part of the sky the constellations are to be looked for. He ought, on any night of the year, to be able to turn at once to the proper map, and in that map he ought to see at once what to look for, toward what point of the compass each visible constellation lies, and how high it is above the horizon. And, if possible (as the present work shows is the case), one map ought to suffice to exhibit the aspect of the whole heavens, in order that the beginner may not be confused by turning from map to map, and trying to find out how each fits in with the others.

It is to fulfill these requirements that the present maps have been constructed. Each exhibits the aspect of the whole sky at a given day and hour. The circumference of the map represents the natural horizon, the middle of the map representing the part of the sky which lies immediately overhead. If the learner hold one of these maps over his head, so as to look vertically upward at it, the different parts of the horizon marked in round the circumference being turned toward the proper compass points, he will see the same view of the heavens as he would if he were to lie on his back and look upward at the sky, only that the map is a planisphere, and the sky a hemisphere.

But, although this illustration serves to indicate the nature of the maps, the actual mode of using them is more convenient.

Let it first be noted that, properly speaking, the maps have neither top, bottom, nor sides. Each map may be held with any part of the circumference downward; then the center of the map is to be looked upon as the top for that part of the circumference. The portion of the map lying beneath the center represents the portion of the sky lying between the point overhead and a certain portion of the horizon—the part, in fact, corresponding to the particular part of the circumference which is turned downward. Thus, if on any night we wish to learn what are the stars toward the north, we look for the map corresponding to that night. At the hour named the stars toward the north will be those shown between the center of the map and the top; and, of course, we hold the map upside down, so as to bring the center above the northern part of the circumference.

Again, it must be noted that, although the maps are necessarily arranged in a certain order, there is in reality no first or last in the series. The map numbered I. follows the map numbered XII. in exactly the same manner that the latter follows the map numbered XI. The maps form a circular series, in fact.

The only reason for numbering the maps as at present is that the map numbered I. happens to exhibit the aspect of the sky at a convenient hour on the night of January 1. It will be found that the dates follow on with intervals of three or four days right round the year, the end of the year falling in the left-hand column of Map I., while the beginning of the year is in the middle column of the same map. It may be mentioned, in passing, that the dates have not been thrown in so as to fall regularly round the year, but correspond with the variations due to the earth's variable motion round the sun.

It will be seen at once that a map can always be found corresponding to a convenient hour on any night of the year, except only in midsummer, when, on a few of the dates, night has not begun at the hour named. It was impossible, without spoiling the regularity of the dating, or adopting an inconveniently late hour for all the maps, to avoid this difficulty. But, as a matter of fact, the difficulty disappears at once when the student is told that on any date named under a map, the aspect of the sky two hours later than that named, is that represented in the following map. Thus, at eight o'clock in the evening of June 21, the aspect of the stars is as shown in Map VI., but the stars cannot be seen, because it is still daylight; at ten o'clock, however, on the same night, the aspect of the sky is that shown in Map VII., as, indeed, the first date under that map shows.

Next as to finding the north point, or any point of the compass which will enable the observer to determine the rest. If he is only familiar with the aspect of those seven bright stars of the Great Bear which have been called Charles' Wain, the Butcher's Cleaver, the Great Dipper, and by other names, he can always determine the north point by means of the two stars called the pointers, since these seven stars never set. In the

explanation of each map it is shown where the Great Bear is to be looked for on each night, the observer being assumed to have such a general knowledge of the direction of the compass-points as will suffice for the purpose of finding so marked a collection of stars. Thus the pole-star is found, and for the purpose of such observations as are here considered, this star may be looked upon as marking the exact direction of the north.

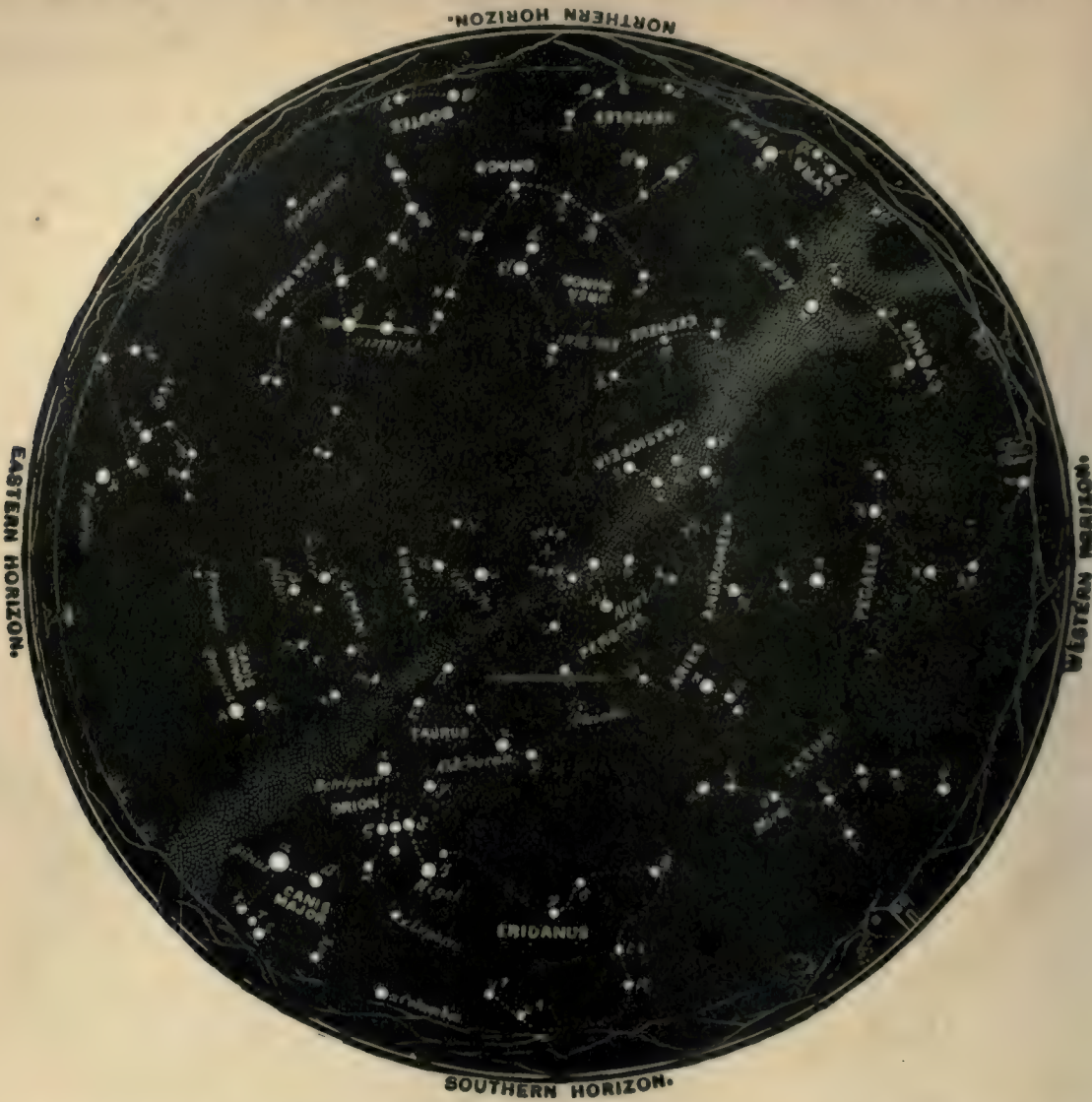
It is worth noticing that the stars called the Guardians of the Pole form no bad time-piece when used with the aid of such maps as the present. They revolve round the pole once in twenty-four hours (less about four minutes), in a direction contrary to that of a clock's hands. But stars near the equator, whose motions are much more rapid, afford a yet better measure of time, if the direction of the south point is well determined.

It will be well for the student to remember that the planets Venus, Mars, Jupiter and Saturn will at times appear among the constellations here shown. Venus and Jupiter can always be recognized by their superior light, and Mars and Saturn by the steadiness with which they shine. As they never appear, save among the zodiacal constellations, it becomes very easy to recognize them.

The following list exhibits the names of all the stars of the first three magnitudes to which astronomers have given names; at least, all those whose names are in common use:

α *Andromedæ* (Andromeda) ..... *Alpheratz.*
β " ..... *Mirach Mizar.*
γ " ..... *Almach.*
α *Aquarii* (Aquarius—The Water-Bearer) ..... *Sadalmelik.*
β " ..... *Sadalsund.*
δ " ..... *Skat.*
α *Aquilæ* (Aquila—The Eagle) ..... *Altair.*
β " ..... *Alshain.*
γ " ..... *Tarazed.*
α *Arietis* (Aries—The Ram) ..... *Hamal.*
β " ..... *Sheratan.*
γ " ..... *Mesartim.*
α *Aurigæ* (Auriga—The Waggoner, or Charioteer) .... *Capella.*
β " ..... *Menkalinan.*
α *Boötis* (Boötes) ..... *Arcturus.*
β " ..... *Nekkar.*
ε " ..... *Izar, Mizar, Mirack.*
η " ..... *Muphrid.*
α *Canum Ven.* (Canes Venatici—The Hunting Dogs) *Cor Caroli.*
α *Canis Majoris* (Canis Major—The Great Dog) ..... *Sirius.*
β " " ..... *Mirzam.*
ε " " ..... *Adara.*
α *Canis Minoris* (Canis Minor—The Little Dog) .... *Procyon.*
β " " ..... *Gomeisa.*
α^2 *Capricorni* (Capricornus—The Goat) ..... *Secunda Giedi.*
δ " ..... *Deneb Algiedi.*
α *Cassiopeiæ* (Cassiopeia) ..... *Schedar.*
β " ..... *Chaph.*
α *Cephei* (Cepheus) ..... *Alderamin.*
β " ..... *Alphirk.*
γ " ..... *Errai.*
α *Ceti* (Cetus—The Whale, or The Sea Monster) ..... *Menkar.*
β " ..... *Diphda.*
ζ " ..... *Baten Kaitos.*
ο " ..... *Mira.*
α *Columbæ* (Columbæ—The Dove) ..... *Phact.*
α *Coronæ Bor.* (Corona Borealis—Northern Crown) .. *Alphecca.*
α *Corvi* (Corvus—The Crow) ..... *Alchiba.*
δ " ..... *Algores.*
α *Crateris* ..... *Alkes.*
α *Cygni* (Cygnus—The Swan) ..... *Arided, Deneb, Adige.*
β " ..... *Albireo.*
α *Draconis* (Draco) ..... *Thuban.*
β " ..... *Alwaid.*
γ " ..... *Etanin.*
β *Eridani* (Eridanus) ..... *Cursa.*
γ " ..... *Zaurac.*
α *Geminorum* (Gemini—The Twins) ..... *Castor.*
β " ..... *Pollux.*
γ " ..... *Alhena.*
δ " ..... *Wasat.*
ε " ..... *Mebsuta.*
α *Herculis* (Hercules) ..... *Ras Algethi.*
β " ..... *Korneforos.*
α *Hydræ* (Hydra—The Water Snake) ... *Alphard, Cor Hydræ.*
α *Leonis* (Leo—The Lion) ..... *Regulus, Cor Leonis.*
β " ..... *Deneb Aleet, Denebola, Deneb.*
γ " ..... *Algeiba.*
δ " ..... *Zosma.*
α *Leporis* (Lepus) ..... *Arneb.*
α *Libræ* (Libra—The Scales) ..... *Zuben el Genubi.*
β " ..... *Zuben el Chamali.*
γ " ..... *Zuben Hakrabi.*
α *Lyræ* (The Lyra—The Lyre) ..... *Vega.*
β " ..... *Sheliak.*
γ " ..... *Sulaphat.*
α *Ophiuchi* (Ophiuchus—The Serpent-Bearer) ... *Ras Alhague.*
β " ..... *Cebalrai.*
α *Orionis* (Orion) ..... *Betelgeux.*
β " ..... *Rigel.*
γ " ..... *Bellatrix.*
δ " ..... *Mintaka.*
ε " ..... *Alnilam.*
α *Pegasi* (Pegasus) ..... *Markab.*
β " ..... *Scheat.*
γ " ..... *Algenib.*
ε " ..... *Enif.*
ζ " ..... *Homan.*
α *Persei* (Perseus) ..... *Mirfak.*
β " ..... *Algol.*
α *Piscis Aust.* (Piscis Australis—The Southern Fish) *Fomalhaut.*
ε *Sagittarii* (Sagittarius—The Archer) ..... *Kaus Australis.*
α *Scorpionis* (Scorpio—The Scorpion) . *Antares, Cor Scorpionis.*
α *Serpentis* (Serpens—The Serpent) ..... *Unukalhai.*
α *Tauri* (Taurus—The Bull) ..... *Aldeboran.*
β " ..... *Nath.*
η " ..... *Alcyone* (*Pleiad*).
α *Ursæ Majoris* (Ursa Major—The Great Bear) ..... *Dubhe.*
β " " ..... *Merak.*
γ " " ..... *Phecda.*
ε " " ..... *Alioth.*
ζ " " ..... *Mizar.*
η " " ..... *Alkaid, Benetnasch.*
ι " " ..... *Talitha.*
α *Ursæ Minoris* (Ursa Minor—The Little Bear) ..... *Polaris.*
β " " ..... *Kochab.*
α *Virginis* (Virgo—The Virgin) ..... *Spica, Azimech, Spica.*
β " ..... *Zavijava.*
ε " ..... *Vindemiatrix.*

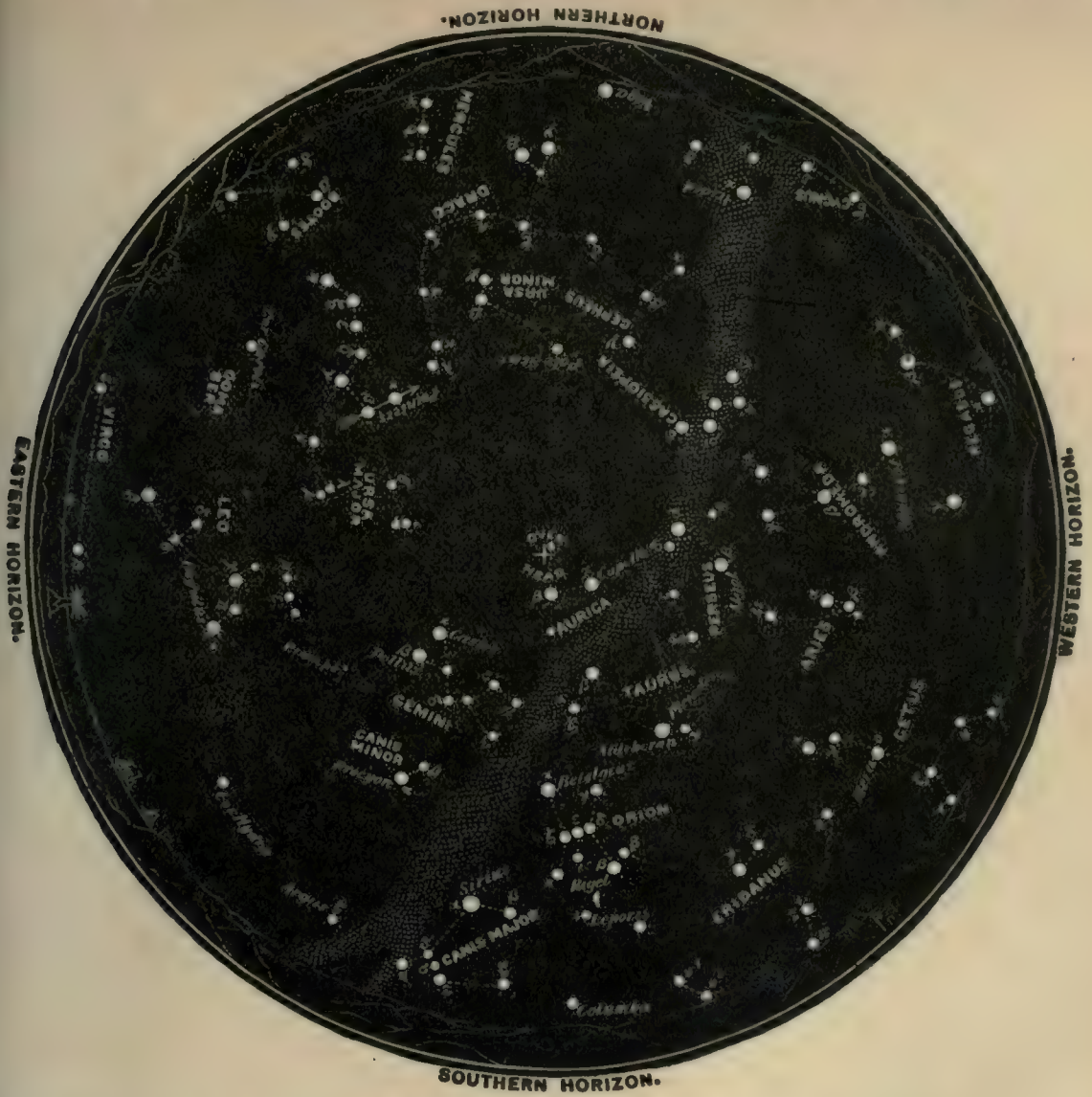
Map I.—HALF-HOUR WITH THE STARS IN JANUARY.



Dec. 21, at 10 o'clock in the evening; Dec. 24, 9:45; Dec. 28, 9:30; Jan. 1, 9:15; Jan. 5, 9:00; Jan. 8, 8:45; Jan. 12, 8:30; Jan. 16, 8:15; Jan. 20, 8:00.

THE Great Bear lies toward the northeast. The Pointers are uppermost, and the pole star is toward the left. The two stars known as the Guardians of the Pole (β and γ of the Little Bear) hang below the pole-star, slightly toward the right. The Dragon forms a loop of stars below the Little Bear. The Lyre is low down on the left, its chief star, Vega, scintillating brilliantly. Still further on the left, almost due northwest, is the fine cross of Cygnus. Following the direction indicated by the upright of the cross, raise the eyes toward the point overhead, and recognize the constellation Cassiopeia, by the five bright stars forming a figure resembling the letter W (now raised on end, the points of the W to the left). Returning to the horizon, and looking further around to the left, we see due west the constellation Pegasus, or the Winged Horse. He is now inverted, his head being close to the horizon on the right. The square of Pegasus, formed by the bright stars Rigel, Betelgeux, Bellatrix and Alpherat, will attract the observer's notice, and lead him to the constellation Andromeda, Alpherat being in Andromeda's head. The length of this constellation is now almost vertical, and between the feet of Andromeda and the point overhead lies the constellation Perseus. Notice Algol (the Demon Star of the Arabs), lying due southwest, close up to the point overhead. Of the variations of this remarkable star a great deal might be said. Usually the observer will see it of the second magnitude, however, as it only remains a fourth magnitude star for about twenty minutes. Immediately below Perseus is Aries, recognizable by the three stars which form the Ram's head. Below that again is Cetus, the Whale. Due south lies Eridanus, consisting chiefly of small stars, which cover a wide expanse of sky. Above is Taurus, recognizable at once by the Pleiades and Aldeboran. Still turning toward the left we see Orion, nearly upright, but with his shoulders slightly thrown back. Immediately below Betelgeux (Ibt-al Jauza, the Giant's Shoulder) is Canis Major, on his hind feet, and throwing a forepaw toward the Little Hare (a constellation of small stars directly below Orion). Observe the leading star of the Dove (*a* Columbæ) directly below *a* Leporis. Almost due west, and midway between the horizon and the point overhead, are the twin stars Castor and Pollux, Castor being uppermost. Still higher lies Auriga, the star Capella, always a very conspicuous object, shining very brilliantly at this elevation. Canis Minor lies below the feet of the Twins. Observe the small cluster Præsepe, or the Beehive (only visible on very clear nights); it lies now almost exactly midway between Castor and the horizon. Further to the left, and near the horizon, is the Lion. It is well to notice "The Sickle" (the group of stars formed by Regulus, η, γ, μ, ϵ, and two small stars), as this is a well-marked object.

MAP II.—HALF-HOUR WITH THE STARS IN FEBRUARY.



Jan. 20, at 10 o'clock in the evening; Jan. 23, 9:45; Jan. 27, 9:30; Jan. 31, 9:15; Feb. 4, 9:00; Feb. 7, 8:45; Feb. 11, 8:30; Feb, 15, 8:15; Feb. 19, 8:00.

THE Great Bear is now midway between the horizon and the) point overhead, and toward the northeast. The "pointers" are uppermost, and the pole-star lies toward the left (as shown in the). The Guardians of the Pole are seen below, and toward the right. nediately below the pole lies the Dragon's Head, the body and tail nding toward the right, to a point between the pointers and the rdians of the Pole. Vega is seen just above the horizon, slightly he left of the north point. Further to the left is the upper part Cygnus, above which is the inconspicuous Cepheus. Due north- t, and high above the horizon, is Cassiopeia, the W being now in position M. Further to the left, and close to the horizon, is the ng Horse. The square of Pegasus stands just above the horizon. e upper corner (Alpherat) of the square belongs to Andromeda, still rted; and above the feet of Andromeda we see Perseus. Algol is due west. Below Algol, but slightly to the left, is Aries; and lower, and further to the left, Cetus appears, the figure presented ts principal stars reminding one of the Mantis insect. It is now ng. The star Mira may not be visible, as this is a variable, invis- at regular intervals for months together. Notice Eridanus setting ard the southwest, and Taurus above; and then turn to Orion, ost due south, standing erect in all his glory, at the greatest elevation he ever attains in our latitude. To the left, low down, we see the Greater Dog, Sirius, now shining with his full splendor. The dog is still rampant; indeed, he is never seen otherwise in our latitudes. Looking upward, and somewhat further to the left, almost due southeast, we see the Twins, their feet resting on the borders of the Milky Way. Still higher is Auriga, now, in fact, overhead. Below the Twins see the Little Dog. Below this constellation the stern of the ship Argo is rising into view. But as the part of this constellation which rises above our horizon contains no conspicuous stars, we need not pay much attention to it at this stage of our star-gazing.

Somewhat to the east of southeast we see a single conspicuous star —though several small stars are seen in the neighborhood. This is Cor Hydræ, the Heart of the Sea Serpent. The Arabian astronomers gave to this star the name of Al Fard, or The Solitary One. Leo lies toward the east, and between the Sickle in Leo and the Lesser Dog we recognize Præsepe, and the two small stars on either side, known to the ancients as the Aselli.

We have now come round again to the Great Bear. Observe how much larger an extent of sky this constellation covers than is commonly assigned to it by beginners. Below the Bear's tail the head and shoulders of Boötes are rising into view.

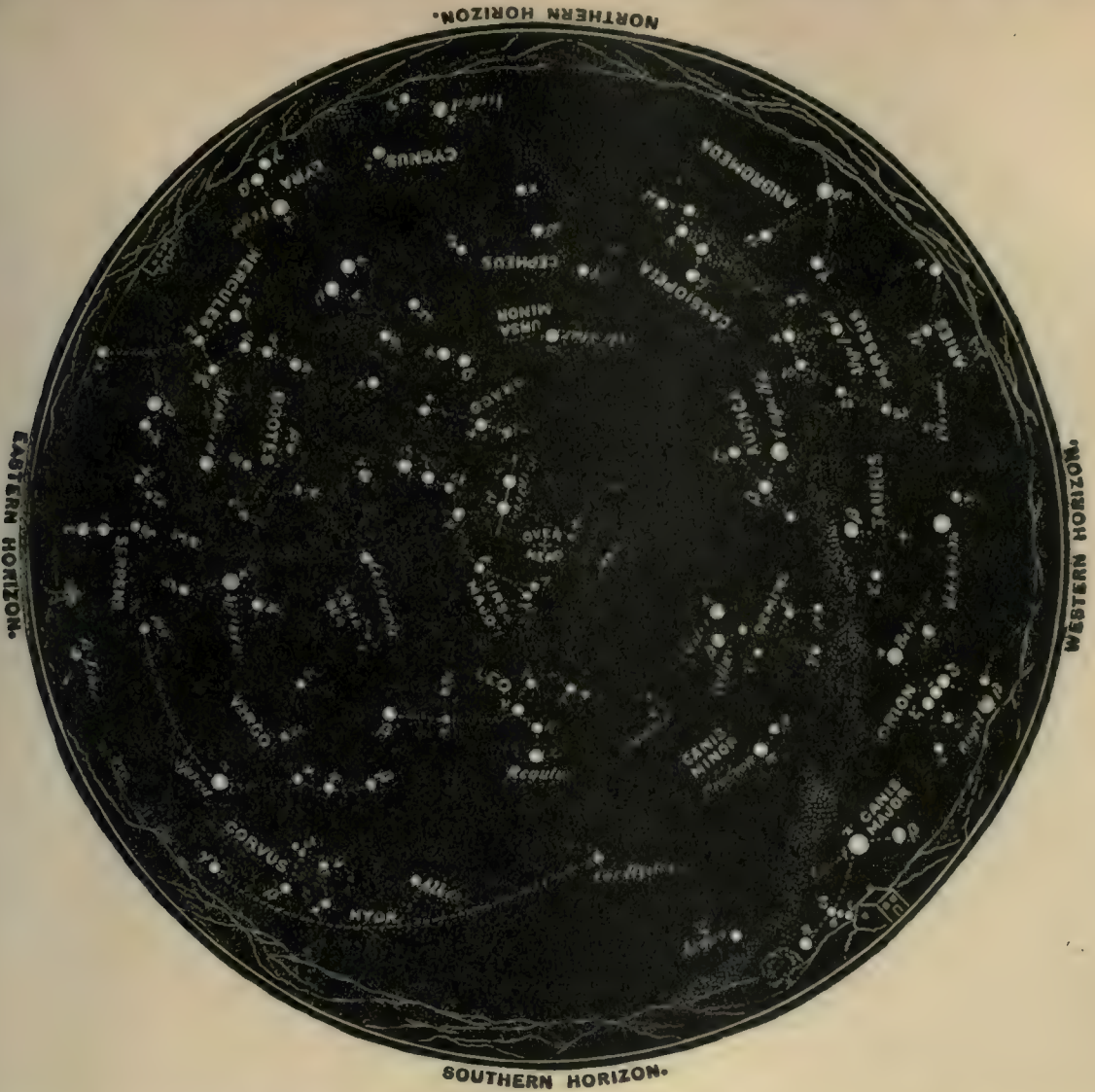
Map III.—Half-Hour with the Stars in March.



Feb. 19, at 10 o'clock in the evening; Feb. 22, 9:45; Feb. 26, 9.30; March 2, 9:15; March 6, 9:00; March 9, 8:45; March 13, 8:30; March 17, 8:15; March 21, 8:00.

THE Great Bear is now approaching the point overhead, but is easily recognized toward the northeast. The Pointers, as shown, indicate the pole-star toward the left, and considerably below them. The Guardians of the Pole now lie on the right of, and somewhat below the pole-star. Vega shines just above the horizon, immediately below them. Between lies the Dragon's Head; and we see the body and tail of the Dragon curving round between the head and the Guardians of the Pole. The upper part of Cygnus is now all that can be seen of this constellation, almost due north on the horizon. Further to the left, and well raised above the horizon, we see Cassiopeia. Andromeda is now approaching the horizon, her head almost touching it toward the northwest. Next on the left is Aries, and above Aries is Perseus. Above Perseus is Auriga, Capella being almost due west. Cetus has nearly set, only its head being visible above the horizon. Above Eridanus (now nearly set) is Taurus, very favorably situated for observation. The Pleiades lie due west, and Aldeboran—a brilliant red star—to their left. Orion is toward the southwest, bending forward toward the west. Above him, but somewhat to the left, are the Twins, Castor still uppermost. Below the Twins are the two Dogs, Canis Major toward the south-southwest, and low down. Cor Hydræ lies midway between the south and the southeast, and is well raised above the horizon. It is interesting to notice how blank this part of the heavens appears, so far, at least, as conspicuous stars are concerned. Toward the southeast is Alkes, the chief star in the Cup; and we notice the Crow just rising into view toward the left. Above we recognize Leo, the Sickle being now a conspicuous object. Virgo has risen partially into view above the eastern horizon. The cup-shaped group formed by the five stars shown in the map was called by the Arabian observers, for reasons not yet explained, "The Retreat of the Howling Dog." Boötes has now risen above the horizon, though as yet in a recumbent position. Arcturus is a conspicuous object on the right of this constellation. Below the head and shoulders of Boötes notice the Crown, one star only of which (Alphecca) is shown in the map. Doubtless this group of stars originally formed the right arm of Boötes. The constellation recently attracted much notice as the region in which a new star (or rather, an irregular variable) made its appearance a year or two ago. Hercules is gradually rising into view toward the northeast.

Map IV.—Half-Hour with the Stars in April.



March 21, at 10 o'clock in the evening; March 24, 9:45; March 28, 9:30; April 1, 9:15; April 5, 9:00; April 8, 8:45; April 12, 8:30; April 16, 8:15; April 20, 8:00.

THE Great Bear is now easily found, being nearly overhead. The pole lies below the Pointers.

The Guardians of the Pole are now somewhat higher than the pole toward the right. Below the pole-star is Cephus, and due west of him is Cassiopeia, the W gradually approaching its natural position. Andromeda's feet are to be seen above the southwestern horizon, and toward the left Aries is setting.

Above Aries is Perseus, now well situated for observation. The brilliancy of the Milky Way in this neighborhood is worth noticing.

Due west is the Bull, above which lies Auriga.

Orion is now approaching the horizon, and is prone toward his "western grave;" above him hang "the starry Gemini."

Toward the left are the two Dogs. The Greater Dog is now setting.

Cor Hydræ is somewhat to the west of south. Above is the Sickle in Leo, due south, and with its handle vertical.

The length of Hydra is now nearly raised above the horizon.

Virgo has risen, and the brilliant Spica is a conspicuous object toward the southeast. Just above the horizon is the second star of the Scales.

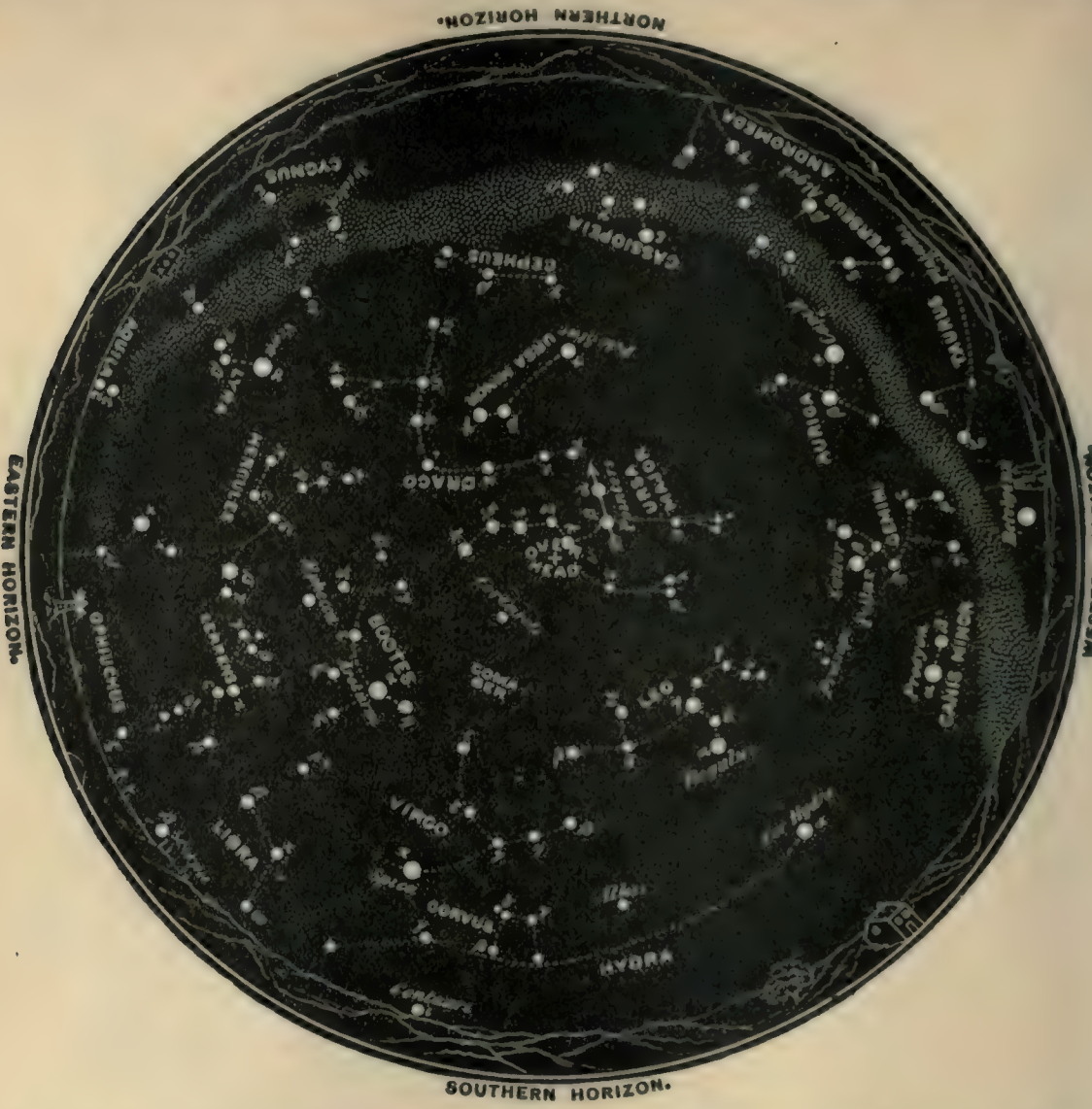
Due east is the Serpent just above the horizon. It must be noticed, however, that a part of this constellation lies on the further side of the as yet unrisen Ophiuchus. Serpens is the only constellation thus divided.

Above Serpens is Boötes, still nearly recumbent. Coma Berenices and Cor Caroli occupy the positions severally accorded to them in the map.

To the left of Serpens is Hercules, or Engonasin, the Kneeler, supposed by many to represent Adam kneeling on the head of the serpent, Draco.

The Lyra has now nearly risen, in the northeast, immediately beneath the Dragon's head.

Map V.—Half-Hour with the Stars in May.



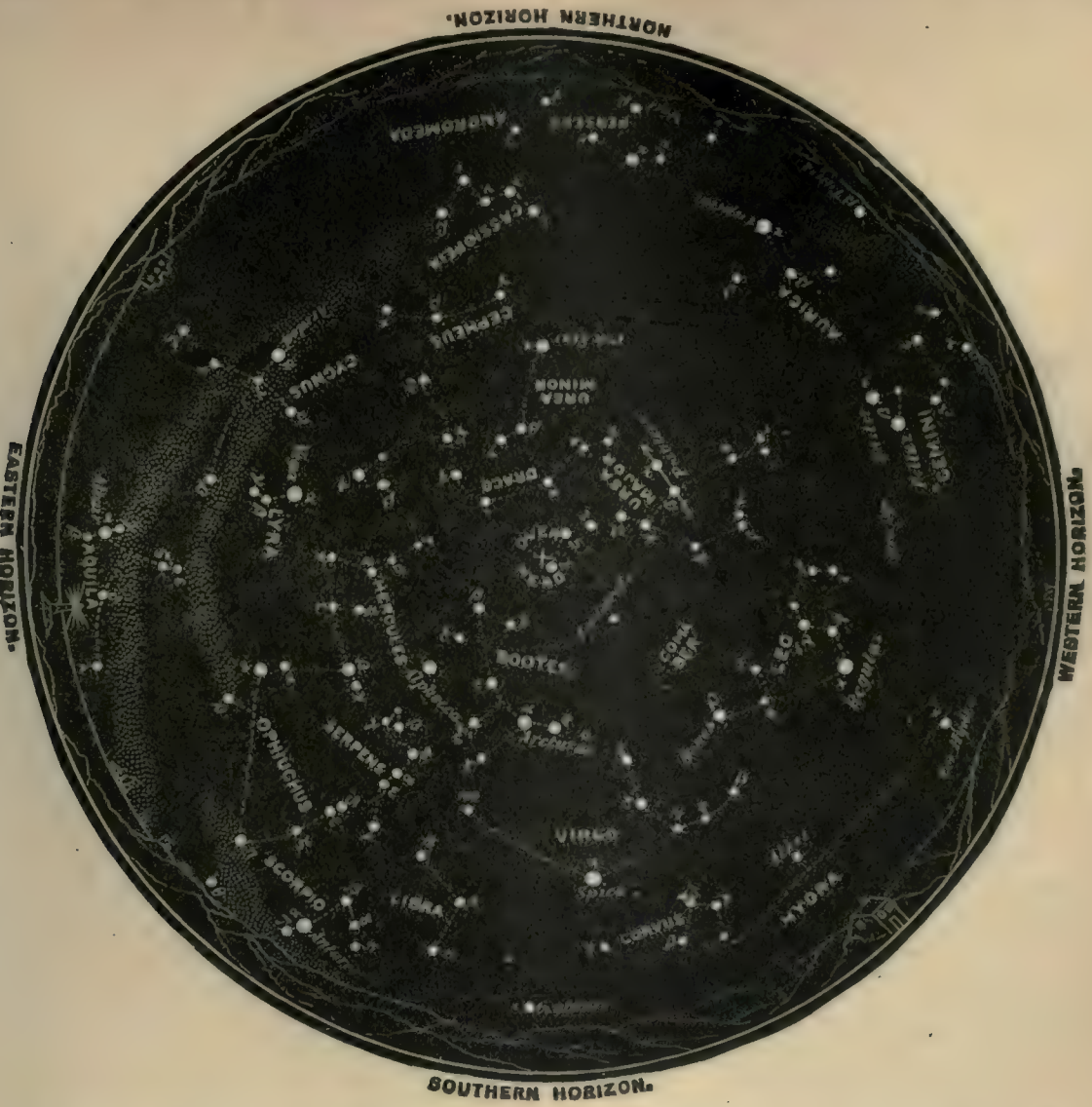
April 20, at 10 o'clock in the evening; April 23, 9:45; April 27, 9:30; May 1, 9:15; May 5, 9:00; May 9, 8:45; May 13, 8:30; May 17, 8:15; May 21, 8:00.

THE Great Bear, still overhead, is found immediately, and the Pointers, which have now crossed over to the west of the zenith, point downward to the pole-star. The Guardians of the Pole are now higher than the pole, toward the right. Below the pole Cephus and Cassiopeia are seen, the former on the right. Andromeda has nearly disappeared; and Perseus has passed the northwest, and is approaching the horizon. The Pleiades are just setting, almost due northwest; and above is Auriga. In the west we see Betelgeux, the sole star belonging to Orion, now visible. Above, and due west, are the twin stars Castor and Pollux. We have, in fact, the configuration described by Tennyson, speaking of the season we are considering:

> "It fell on a time of year
> When the shining daffodil dies, and the Charioteer
> And starry Gemini hang like glorious crowns
> Over Orion's grave, low down in the west."

Canis Major has set, but the Lesser Dog is still above the horizon, to the left of and below the Twins. Cor Hydræ is almost exactly toward the southwest, and above is Leo. Due south, the small quadrangle of Corvus is seen, above which is "The Retreat of the Howling Dog," Spica shining conspicuously on the left, toward the south-southeast. Libra has risen into view, and somewhat to the east of southeast we see the first indications of the interesting southern constellation Scorpio. The vertical row of conspicuous stars formed by a part of Ophiuchus and the body of Serpens is well worth noticing. Above it is Boötes; to the left of which, and lower down, we see Hercules, inverted. His head is marked by the upper alpha, the lower representing the head of Ophiuchus, the Serpent-holder—typical, some suppose, of the Messiah. The feet of the kneeling Hercules are on the head of Draco, whose body and tail extend upward, between the Guardians of the Pole and the Greater Bear. It is impossible not to recognize, from the configuration of this constellation as now seen, that the ancients looked on the stars which form the Lesser Bear as forming a wing of Draco. Beneath the Dragon's head we see the Lyre. The Swan has now risen above the horizon, and the cross belonging to this constellation is seen in an almost horizontal position. The brilliancy of the Milky Way at this part of its extent is well worth noticing. In the space between the stars α, β and γ Cygni, there is a distinctly-marked black gap in the Milky Way, which has been termed the Northern Coalsack. The extension of the Milky Way toward Cephus should also be noticed.

Map VI.—Half-Hour with the Stars in June.



May 21, at 10 o'clock in the evening; May 25, 9:45; May 28, 9:30; June 1, 9:15; June 5, 9:00; June 9, 8:45; June 13, 8:30; June 17, 8:15; June 21, 8:00.

THE last star of the Great Bear's tail is now just passing the point overhead. The Pointers are lowermost, and the pole-star is below, toward the right. The Guardians of the Pole are above the pole-star, a little toward the right. Below them is Cassiopeia, the W being now almost in the proper position of the letter. To the left is Perseus, Algol being quite close to the horizon. Further round to the left we see Capella and the other stars of Auriga low down toward the horizon. Not much higher are the twin-stars Castor and Pollux, Castor to the left, the feet of the twins resting on the horizon. It is interesting to compare the splendor of the sky near the horizon, from Gemini in the west-northwest, to Cassiopeia in the north, with the comparative blankness of the part of the sky immediately above these constellations. Præsepe is almost due west, about as high as Castor. Leo has come around so far toward the west that the tip of the Sickle just reaches that point of the compass. Below Regulus is Al Fard, now near setting. Virgo is now at her highest, Spica shining resplendently a little toward the west of south. Below Virgo notice Corvus and Crater, two of the neatest small constellations in the heavens. Due south, just above the horizon, is the head of the southern constellation the Centaur. Above Virgo, and almost due south, we see Boötes, now nearly upright, and presenting a fine figure as with uplifted arm (the stars belonging to the Crown) he chases Ursa Major past the zenith. Returning to the neighborhood of the horizon, observe the brilliant red star Antares, or Cor Scorpionis, lately risen above the southeastern horizon. Due southeast we see a fine line of brilliant stars formed by ζ, ε and δ Ophiuchi, and ε, α and δ Serpentis. These stars, with η Ophiuchi, and the stars γ and β Serpentis, form a figure much resembling a saber, the cross-handle being formed by two stars not shown in the map. Nearly the whole of the large constellation Ophiuchus (the reader will remember how Milton says of a comet, that it "fired the length of Ophiuchus large") has now risen above the horizon. It requires some imagination to recognize in it the figure of a man holding a serpent; but this is not the only instance in which the stars of a constellation bear little resemblance to the figure from which the constellation is named. Hercules is now nearly due east and high above the horizon. Toward the same quarter, but quite close to the horizon, Aquila is coming into view, the brilliant Altair scintillating finely. Lyra is above, Vega being almost exactly midway between the horizon and the point overhead. The leading star of Cygnus is toward the northeast, the length of the cross being still nearly horizontal. Between Cygnus and the point overhead is the head of the Dragon, the body and tail winding off toward the left and upward, above the Guardians of the Pole.

On some of the dates named under this map the stars cannot be seen, as it is not yet dark. Therefore use Map VII. two hours later. For instance, on June 21, use Map VII. at ten o'clock, and similarly for the other days at the end of June.

Map VII.—Half-Hour with the Stars in July.



June 21, at 10 o'clock in the evening; June 25, 9:45; June 29, 9:30; July 3d, 9:15; July 7, 9:00; July 10, 8:45; July 14, 8:30; July 18, 8:15; July 22d, 8:00.

THE Great Bear is now descending toward the northwest. The Pointers lie nearly half-way between the point overhead and the horizon, toward the northwest. Thus the pole-star lies to the right of the Pointers. The Guardians of the Pole have passed above the pole toward the left. Below the pole, and close to the horizon, we see Perseus on the right, and Auriga on the left. Capella is scintillating brilliantly, as are Castor and Pollux, which are now setting near the northwest, Pollux lowest and on the left. Præsepe is nearly set, and will probably not be visible in the thick air so low down. Leo is approaching the horizon, the Sickle being inclined forward. Above β Leonis notice the Hair of Berenice, half-way between the horizon and the point overhead, and forming an interesting object at this elevation. Boötes stands now in the northwest, high up above the horizon. Below Arcturus is Spica, and lower still, toward the right, the Crow and Cup are setting. The constellation Scorpio forms a magnificent object in the south. The stars which are assigned to this constellation in maps form but a portion of the original constellation, and it is not difficult to recognize in the arrangement of the stars now lying toward the south a resemblance to the figure of a scorpion with extended claws. Above Scorpio we see the group of stars compared to a saber, now no longer vertical, but inclined forward. "Ophiuchus large" is fully raised, and reaches from the horizon more than half way to the point overhead, and from the south to the southeast. Below his head (α) we see Sagittarius just rising above the horizon; and above Ophiuchus, Hercules extends right up to the point overhead. The three bright stars in the body of Aquila are now midway between southeast and east; the uppermost is γ, the lowest β, and the middle star is Altair. Above, toward the left, is Lyra, Vega being now raised far toward the point overhead. Below Vega is the head of Cygnus, and the cross of Cygnus is now in a position exactly horizontal, and also exactly midway between the point overhead and the horizon; in other words, each of the stars α, γ and β Cygni now has an elevation of forty-five degrees above the horizon. Below Cygnus, Pegasus is rising into view, three stars of the square being visible, and the nose of the horse (ε) due east. Andromeda has just risen above the northeastern horizon. Above her feet we see Cassiopeia, the W still in its natural position. Draco forms a curve round and above the Guardians of the Pole, his head being to the east, and close to the point overhead.

On the last three dates mentioned under this map it will be better to use Map VIII., two hours later.

Map VIII.—Half-Hour with the Stars in August.



July 22, at 10 o'clock in the evening; July 26, 9:45; July 30, 9:30; Aug. 3, 9:15; Aug. 7, 9:00; Aug. 11, 8:45; Aug. 15, 8:30; Aug. 19, 8:15; Aug. 23, 8:00.

THE Great Bear is now in the northwest, and midway between the point overhead and the horizon, the pole to the right of the Pointers. The Guardians of the Pole have swung round above the pole-star toward the north-northwest. Below the pole is the head of the Charioteer, Capella still low down toward the right of the north point. Above the Lesser Bear is the body of Draco, his head almost exactly overhead. Below the Great Bear, Leo is setting, only a part of the Sickle being visible. Coma Berenices lies immediately above the tip of the Lion's tail (β), and above Coma again is Cor Caroli and the poor constellation, the Hunting Dogs, of which Cor Caroli is the leading brilliant. Virgo is setting. To the left Spica is scintillating brilliantly, close to the horizon in the west-southwest. Boötes is now midway between the horizon and the point overhead, and inclining forward, his head and shoulders due west, his feet above Spica. In the southwest is Libra, close to the horizon. Above is Serpens, reaching to a point midway between the horizon and the point overhead. Between the head of the serpent (γ, β) and the zenith we see Hercules, reaching round from the south to the west, and still inverted. In fact Hercules is never seen upright in our latitudes. This kneeling figure must have been conceived by astronomers living in other latitudes, and at a time when the pole was very differently situated. Ophiuchus has now passed the south toward south-southwest, and Antares and the other stars of Scorpio lie toward the same quarter low down toward the horizon. It is interesting to notice the portion of the Milky Way now brought into view toward the south. We see here the commencement of that part of the Milky Way which, by its superior brilliancy, as seen in southern latitudes, indicates the greater proximity of the galaxy in that direction. It is also interesting to notice how singularly the two branches of the Milky Way vary in splendor along the southern half of the semi-circle now above the horizon. Lyra is high up toward the point overhead, the stars β and γ forming a pendant to the brilliant Vega. Below them, toward the southeast, and about half way between the horizon and the point overhead, is Altair, γ and β Aquilæ lying almost in a vertical line, one above, the other below Altair. Low down toward the horizon are the zodiacal constellations Sagittarius (extending from south to south-southeast), Capricornus (extending past the southeastern quarter) and Aquarius, reaching nearly to the east. It is, indeed, noteworthy that from the northwest right round through south to the northeast, the horizon is occupied by zodiacal constellations, no less than eight of which are thus situated—though Pisces, having no conspicuous stars, is not marked in, in Map VIII. Cygnus is high up toward the east, and below Arided is the square of Pegasus. The left-hand start of the square is Alpherat, and Andromeda lies in a nearly horizontal position, her feet being toward the northeast. Above these is Cassiopeia, the right hand side of the W beginning to be the highest. Below, and close to the horizon, is Perseus.

MAP IX.—HALF-HOUR WITH THE STARS IN SEPTEMBER.



Aug. 23, at 10 o'clock in the evening; Aug. 27, 9:45; Aug. 31, 9:30: Sept. 4, 9:15; Sept. 8, 9:00; Sept. 12, 8:45, Sept. 15, 8:30; Sept. 19, 8:15; Sept. 23, 8:00.

THE Great Bear is now passing toward the north, and getting low down. The pointers are to the right of the seven stars, and the pole-star lies above them, and toward the right. The Guardians of the Pole are to the left of, and scarcely higher than the pole-star. The Dragon passes between the two Bears toward the west, his head being still high above the horizon. Coma Berenices is setting between northwest and west-northwest. Boötes has passed the west, and forms a fine figure above that part of the horizon. The Northern Crown, with the brilliant Alphecca, is due west, about midway between the horizon and the point overhead.

Above the Crown are the feet of Hercules. His head and shoulders are to the left of the Crown, and at about the same height above the horizon. The Serpent lies between the shoulders of Hercules and the horizon. On the left is "Ophiuchus large," toward the southwest, and extending from the horizon halfway to the point overhead. The brilliant Vega lies toward the same quarter, but much higher up.

Aquila is due south, Altair being about midway between the horizon and the point overhead. Close to the horizon, and extending from south-southwest to south, is Sagittarius. Next to him, on the left, is Capricornus, and next to that again is Aquarius, now covering a wide range of sky between Capricornus and Pegasus. In the zenith is Cygnus, the upright and cross-rod of the cross being now about equally inclined to the horizon. The square of Pegasus has passed the east, the left-hand star being still Alpherat, and Andromeda still in a horizontal position. Cassiopeia is in the northeast, and raised somewhat more than halfway from the horizon toward the point overhead.

Below Andromeda, Aries has fully risen; and toward the northeast, low down, we see the Pleiades again. Between them and Cassiopeia lies Perseus. It is well to notice this constellation while in its present position, and also the richness of the background of milky light in this neighborhood. The whole of this part of the heavens is full of beauty, and contrasts strangely with the barren region close by, between the north point of the horizon and Cassiopeia.

Auriga is rising above the north northeast horizon, and Capella is beginning to scintillate less brilliantly as it rises above the denser strata of the atmosphere.

Map X.—Half-Hour with the Stars in October.



Sept. 23, at 10 o'clock in the evening; Sept. 26, 9:45; Sept. 30, 9:30; Oct. 4, 9:15; Oct. 8, 9:00; Oct. 11, 8:45; Oct. 15, 8:30; Oct. 19, 8:15; Oct. 23, 8:00.

THE Great Bear is low down toward the north-northwest; the pole-star lying above, and very little to the right of the Pointers. The Guardians of the Pole are now below the pole-star, on the left, and almost exactly midway between the horizon and the point overhead. The Dragon passes between the two Bears, and round to the left of the Guardians of the Pole. His head is toward the west-northwest, high up above the horizon. Cor Caroli is approaching the horizon, and Boötes is already half set. So, also, is Serpens in the west. But Corona is still well raised above the north-northwest horizon. Hercules is in the west, but extends over a wide range, from side to side. Vega is due west, and high above the horizon, the stars β and γ lying to the left, at about the same height. Also at about the same height is the star β of the Swan, and the Cross of Cygnus is now upright again, Arided lying near the point overhead. Altair is in the southwest, raised somewhat less than halfway from the horizon toward the point overhead. Below Aquila is Sagittarius. Next, to the left and somewhat higher, is Capricornus, and, next, Aquarius, in the south. A noted star, Fomalhaut, the most southerly first-magnitude star ever seen in this country, is now visible toward the east of south, and very low down. It is the chief star of the Southern Fish, a constellation not to be confounded with the southermost of the Fishes. The Square of Pegasus is toward the southeast, raised high above the horizon. Alpherat is still the most easterly star of the square, and Andromeda is still horizontal, though now well raised above the eastern horizon. The Sea Monster, Cetus, covers a wide range of the sky, low down, toward the east-southeastern horizon. The limits of the constellation, indeed, as defined by astronomers, extend from the east to the south-southeast. Aries is in the east, about halfway between Andromeda and the horizon. Taurus has now risen in the east-northeast, Aldeboran, the brightest red star in the heavens, scintillating brilliantly low down toward the horizon. Above the head and horns of Taurus is Perseus, and immediately above Perseus, raised three-quarters of the way from the horizon toward the point overhead, is Cassiopeia, the W now almost on end, and having the points toward the right. Auriga has now risen in the northeast, Capella being almost exactly in that quarter, and raised somewhat more than one-fourth of the way toward the point overhead. Castor is just rising between the northeast and the north-northeast.

Map XI.—Half-Hour with the Stars in November.



(Oct. 23, at 10 o'clock in the evening; Oct. 26, 9:45; Oct. 30, 9:30; Nov. 3, 9:15; Nov. 7, 9:00; Nov. 10, 8:45; Nov. 14, 8:30; Nov. 18, 8:15; Nov. 22, 8:00.

THE Great Bear is now due north, and at its lowest, the pole-star lying above, and somewhat to the left of the Pointers. The Guardians of the Pole are below and to the left of the pole star, and immediately above the last star of the Great Bear's tail. The head of Draco has now come to the northwest, and is not nearly so high above the horizon as it was a month ago. Due northwest, and almost on the horizon, is Alphecca, the other stars of the Crown being also very close to the horizon. Between Alphecca and the Great Bear the head and shoulders of Boötes are still to be seen above the horizon. In the west-northwest, close to the horizon, are the heads of the two giant constellation figures Hercules and Ophiuchus. The left-hand and brighter *a* marks the place of the head of the Serpent-bearer, who is now passing below the horizon. The whole of Hercules, on the other hand, is still above the horizon, and, as usual, inverted. Above is Lyra, and Cygnus now occupies a conspicuous position in the west, midway between the horizon and the point overhead, the cross being still nearly vertical. Aquila, the Eagle, is approaching the western horizon, Altair being in the west-southwest, and raised almost exactly one-fourth of the way toward the point overhead. Above Altair, and toward the left, is an interesting little constellation not marked in the map—Delphinus. It will be recognized at once, though consisting only of small stars, by the resemblance it presents to the figure of a dolphin leaping from the sea. Capricornus is in the southwest, low down, and next to it is Aquarius, covering a wide range of the sky, and reaching almost to the south. Below is Fomalhaut, nearing the south-southwest horizon. The square of Pegasus is now at its highest. Andromeda is still horizontal; in fact, it is a peculiarity of this constellation that throughout its rise, from near the horizon to near the point overhead, the star Alpherat is always very nearly on the same level with a portion of the line joining the two stars γ and 51, which mark the feet of Andromeda. This is true from the epoch indicated in Map VII. to that indicated in Map XI., or through one-third part of the constellation's course round the pole. Cetus is now well raised above the south-southeast horizon. The star *a* (Menkar) lies to the east of southeast. Immediately above this star is the head of Aries; below it is Eridanus, now rising in the southeast. Orion also is rising, the three stars forming his belt almost upright toward the east. Above them is Aldeboran, and above that star are the Pleiades. Near the point overhead is Cassiopeia; below Cassiopeia, and somewhat to the right, is Perseus; below Perseus, and to the left, is Auriga, with the brilliant Capella; and below Auriga the twin stars Castor and Pollux have risen, Castor vertically above Pollux.

Map XII.—Half-Hour with the Stars in December.



Nov. 22, at 10 o'clock in the evening; Nov. 25, 9:45; Nov. 29, 9:30; Dec. 3, 9:15; Dec. 7, 9:00; Dec. 10, 8:45; Dec. 14, 8:30; Dec. 17, 8:15; Dec. 21, 8:00.

THE tip of the Great Bear's tail lies almost due north, and low down. The Pointers are toward the north-northeast, and the pole-star is above, and toward the left. The Guardians of the Pole hang below the pole-star, slightly toward the left. Draco hangs below the Lesser Bear, extending around from right to left, where his body bends downward again. The head of Draco lies between northwest and north-northwest, raised almost exactly one-fourth of the way from the horizon toward the point overhead. Toward the left, slightly lower, is Vega, the companion stars β and γ lying on the left. Cygnus is in the west-northwest, the cross again upright, and Arided raised somewhat less than half-way from the horizon toward the point overhead. Above, very near the point overhead, is Cassiopeia. Low down, and somewhat to the right of the western point of the horizon, is Altair, with his companion stars β and γ, the former on his left, the latter on his right. The square of Pegasus is still high above the horizon, toward the west-southwest. The highest star of the square is Alpherat, and Andromeda now extends from this point to the point overhead, close to which are both her feet. Aquarius is setting in the west-southwest. Cetus is due south, well raised above the horizon. The space below Cetus, quite bare of conspicuous stars, belongs to the southern constellations Sculptor and Fornax. Above Cetus is Aries, the star α due south, and raised nearly three-fourths of the way from the horizon toward the point overhead. Above the south-southeast horizon is Eridanus, covering a large space of the sky. Orion has now well risen above the southeastern horizon somewhat easterly. Above him is Taurus, the Pleiades now shining very conspicuously. Near the point overhead is Perseus, the star α being toward the east, and Algol toward the southeast. Below Perseus, somewhat to the left, is Auriga; and below the brilliant Capella are to be seen the twin-stars Castor and Pollux, the constellation Gemini being now in a horizontal position, the feet of the twins (μ and γ) resting on the Milky Way. Procyon has just risen above the eastern horizon. Toward the northeast the sky is almost blank. But low down may be seen two stars belonging to the Sickle in Leo, now rising above the northeastern horizon.

PHYSICAL GEOGRAPHY

AND
ITS SATELLITE SCIENCES
--OF--
GEOLOGY,
METEOROLOGY,
CLIMATOLOGY,
MINERALOGY,
BOTANY,
ZOOLOGY AND
ETHNOLOGY.

OUR GLOBE, AS IT WAS AND AS IT IS; WEATHER AND CLIMATE; ANIMAL AND VEGETABLE LIFE.

OUR EARTH is, indeed, a world of wonders, and whether we penetrate its crust or explore its surface, we will ever find opportunity for study, and food for reflection. When we were at school, and learnt the various countries of the world, we had maps showing us the several divisions of one realm from another. The mountains, lakes and other prominent features of each continent were conned and repeated, but we seldom, perhaps never, bestowed a thought upon the formation of the mountains, and the manner in which rivers ran down into, and through, lakes to the ocean. There were the mountains, there were the lakes, and rivers, and capes, and headlands, and there they are still, to all intents and purposes, the same to see, to climb up, to sail down, as the case may be. But the maps of some countries have undergone visible changes. Territory has changed hands. Some powers have extended their dominions, while other countries have been dismembered. This study is called Geography—Political Geography—for it marks the political boundaries. The knowledge of the formation of hills, headlands, lakes, rivers, seas—their causes, constitution and effects; how they rose, how they exist and wax or wane during the course of centuries—is *Physical Geography.* We must learn how this earth of ours has been gradually made fit for man's habitation, and what the various stages of its growth have been. We must consider plant and animal life upon our planet, and how the atmosphere affects them. All this is embraced in *Physical Geography* and its satellite sciences of Geology, Meteorology, Climatology, Mineralogy, Botany, Zoölogy and Ethnology.

Our globe is nearly round in shape. In the language of science, it is an oblate spheroid—that is, a body having the polar diameter shorter than the equatorial. That our earth is round is evident from the following facts:

1. Men have circumnavigated it—that is, they have sailed in one continuous direction as nearly as the configuration of the land would permit, and have arrived at the point of starting.

2. When we stand on the shore, and observe a ship coming in from the sea, we notice that the tops of the masts are seen first, and lastly the hull, or body. The hull is hidden by the curved surface of the water. In traveling across extensive plains, in like manner, the tops of mountains are seen before their bases.

3. An eclipse of the moon is caused by the shadow of the earth falling on the moon. This shadow is always circular. A spherical body is the only one which will cast a circular shadow in any position in which it may be placed.

4. The north star rises as we travel north, and declines as we go south, till we reach the equator, when it disappears.

For the purpose of locating the different portions of the earth's surface, imaginary circles are employed. Every circle, whether great or small, is divided into 360 equal parts, called degrees.

A great circle divides the earth's surface into two equal parts, or hemispheres; a small circle, into two unequal parts.

The *equator* is a great circle equally distant from the poles.

A *meridian circle* is any great circle passing through the poles.

A *meridian* is half of a meridian circle, extending from pole to pole.

The points on the earth's surface at the ends of the axis are called *poles.* The one which is nearest a certain fixed star called the north star, is the north pole; the other is the south pole.

The *circumference* of the earth is the distance around it, and measures about 25,000 miles.

The *diameter* of the earth is a straight line passing through its center, and terminating in opposite points of its surface. The equatorial diameter extends from any point on the equator to the opposite point, and is about 7,925⅓ miles long. The polar diameter extends from pole to pole, and thus coincides with its axis. Its length in miles is 7,899. The difference of length, about 26⅓ miles, is owing to the flattening of the earth, which brings each pole 13¼ miles nearer the center than are the points that lie on the equator.

The *latitude* of a place is its distance from the equator, measured on its own meridian. Latitude is either north or south, and is reckoned in degrees (from 0 to 90), minutes and seconds. The latitude of places on the equator is 0.

The *longitude* of a place is its distance from some given meridian, measured on its own parallel. Longitude is either east or west, and is reckoned in degrees (from 0 to 180), minutes and seconds. The given meridian from which longitude is reckoned is called the first meridian.

Every degree of latitude is equal to about 69¼ statute miles. A degree of longitude, at the equator, is also about 69¼ statute miles; but, north or south of the equator, it becomes less and less as the meridians approach each other, and at the poles, where they meet, it is nothing.

The *polar circles* are the two parallels 23½ degrees from each pole. The northern polar circle is called the Arctic Circle; the southern, the Antarctic Circle.

The *tropics* are the two parallels 23½ degrees north and 23½ degrees south of the equator. The northern tropic is called the Tropic of Cancer; the southern, the Tropic of Capricorn.

Zones are belts of the earth, bounded by the polar circles and the tropics. The North Frigid Zone, which lies north of the Arctic Circle, is 23½ degrees wide. The North Temperate, which lies between the Arctic Circle and the Tropic of Cancer, is 43 degrees wide. The Torrid, which lies between the tropics, is 47 degrees wide. The South Temperate, which lies between the Tropic of Capricorn and the Antarctic Circle, is 43 degrees wide. The South Frigid, which lies south of the Antarctic Circle, is 23½ degrees wide.

The *circle of illumination* is the great circle which separates the light side of the earth from the dark.



DAY AND NIGHT.—EASTERN HEMISPHERE.

Day and Night.

The earth has two *constant motions*: (1) its *daily motion*, or rotation on its *axis* (its shorter diameter), from *west* to *east*; (2) its *yearly motion*, or movement in a nearly circular path (called its orbit) around the sun. The length of time the earth is turning on its axis is called a *day*. Every part of the earth's surface being successively carried into light and shade, the daily rotation causes the phenomena of *day and night*. The length of time the earth is in passing around the sun is called a *year*. It turns on its own axis in the same time about 365¼ times, hence there are 365¼ days in a year.

As the earth revolves from west to east, the sun will appear to travel from east to west.

At the equator the days and nights are always twelve hours long; the farther a point lies from the equator, the longer are its longest day and its longest night.

At the poles the year is made up of but one day and one night, each lasting six months.

All places in about 66½ degrees of latitude, north or south, have one day in the year twenty-four hours long, and one night of an equal length.

The Change of Seasons

Is produced by the earth's revolution around the sun, in connection with the fact that its axis is constantly inclined to the plane of the ecliptic, and always points in the same direction.

The earth's axis is constantly inclined 23½ degrees to the plane of its orbit. If this were not the case there would be no change of seasons; the circle of illumination would always be identical with some meridian circle. The sun's rays, reaching from pole to pole, would fall on each point of the earth's

surface at the same angle throughout the year, and days and nights would everywhere be of twelve hours' duration. (*See Astronomy.*)

GEOLOGY

Tells us about the external surface of the earth, its stones and rocks, and how they were formed, and generally something about the conformation of the crust of the earth and its history. As has been well said, "Geology is the Physical Geography of the past."

"Everything must have a beginning," and the earth must have had a beginning, although the actual manner of the physical creation of our planet is a disputed fact.

We are not about to discuss the religious side of the question, although we should undoubtedly find that Biblical teaching and Geology run side by side toward the same end, and the testimony of the earth and sky bears witness to the divine hand that created the universe, which we can trace back to the dim and distant ages when "the earth was without form, and void; and darkness was upon the face of the deep."



DAY AND NIGHT.—WESTERN HEMISPHERE.

The Six Eras of Creation.

It seems to be established that each of the six days of Creation was an era, a period, not of twenty-four hours, but of centuries, during which great changes and new appearances took place. The first of these eras was marked by the creation of light; the second, by the separation of vapors from the waters; the third, by the separation of land from water, and the appearance of grass, herb, fruit and tree. On the fourth day, or rather in the fourth era, "God made two great lights in the firmament of the heaven; the greater light to rule the day, and the lesser light to rule the night: and he made the stars also." In the fifth era were created fishes and birds—"great whales, and every living creature that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind." In the sixth era appeared the beasts of the earth, and finally man, for whom the earth had now become a fit abode.

The earth appears at one time to have been an intensely heated molten ball, surrounded by a hot atmosphere filled with vapors and gases. By degrees the outer part of this molten mass gave its heat into space, and portions of its matter became solid as they cooled. As the cooling proceeded, these solid masses grew larger, and at last blended in a thin crust. The vapor in the atmosphere was next condensed, and thus was formed the great primeval ocean, covering the whole globe. From time to time this mighty ocean would break through weak places in the crust, and pour on the seething mass below. Great volumes of steam would then be formed, which would rend the solid barriers above it, and force through the openings thus made floods of melted rock, to flow over the earth, and, in course of time cool down into a new mineral deposit.

In the lapse of ages, innumerable changes of this kind occurred on the surface. Continents were upheaved, and the waters finally subsided into the hollow places, carrying with them and depositing a sediment of rocky matter. The crust gradually became thicker, the surface assumed a form comparatively permanent, and only occasional eruptions showed that fiery heat and waves of molten rock still raged within.

A succession of plants, marking distinct eras of vegetable life, were then called into being, and different orders of animals were created—living and preying upon each other, and dying, as they

do now. The most simple forms of animal life appeared first; then those of a higher organism; and finally man, created in the image of God.

If any one will take the pains to evaporate any saline solution in a capsule till it is about to crystallize, and observe attentively the pellicle of salt as it forms on the surface, an idea may be formed of our globe's physical history. First, a partial film will show itself in a few places, floating about and joining with others; then, when nearly the whole surface is coated, it will break up in some places and sink into the liquid beneath; another pellicle will form and join with the remains of the first, and as this thickens it will push up ridges and inequalities of the surface from openings and fissures in which little jets of steam and fluid will escape. These little ridges are chains of mountains; the little jets of steam, those volcanic eruptions which were at one period so frequent; the surface of the capsule is the surface of the earth, and the five minutes which the observer has contemplated it, a million years.

The principal agents in producing the constant changes going on within and upon our globe are the winds, the ocean, the rivers, and the forces at work within the earth. Land and water are to this day fighting for the mastery, as they did when the condensation of the vapors surrounding the earth formed the seas and oceans, leaving only the higher portions of the earth's mass exposed, and when the clearing up of the dense, dark clouds for the first time let in upon the earth's surface the glorious and vivifying rays of the sun, corresponding to the earliest record in the Bible of the acts of Creation: "And God said, let there be light: and there was light."

But, perhaps, some reader may not think that the land and water of our earth are thus engaged. A very few minutes' reflection, however, will suffice to confirm the assertion. Look at the lofty crags in the Alps, for instance. What has shattered those peaks, and sent the masses toppling down in stone avalanches to the lower slopes, and then into the valleys?—Water. Water has been in the crevices, and was frozen there; in freezing it expanded and loosened the crags, which, forced asunder, gave an opening to more snow and ice, and so this powerful leverage, aided by the wind and storm, is disintegrating our mountains.

It is the same by the seashore; the cliffs are wearing away, and the sea approaches; at other places the sea recedes from the land, as coral formation and embryo chalk cliffs are rising under the surface of the ocean. Lakes dry up, and the meadow or farm arises on the site, while other old spots are submerged.

The rocky wall over which the Niagara River precipitates itself, is constantly wearing away under the impact of 700,000 tons of water every minute; so that the falls are gradually receding toward Lake Erie, at a rate variously estimated at from 1 foot to 1¼ yards every year. They were once, and that, too, within the present geological period, at least four miles nearer to Lake Ontario than they now are.

It is computed that the Mississippi carries annually into the Gulf of Mexico 400,000,000 tons of earthy matter—enough to cover an area of ten square miles to the depth of twenty-five feet.

The winds transport loose sand, particularly on coasts exposed to their fury, and, driving it inland, heap it up in parallel ridges. Such sand-hills, or *downs*, as they are called, are very common near the ocean; on the coast of England they have buried houses and farms.

Rivers are constantly changing the earth's surface by wearing passages through the strata over which they flow, and by bearing incalculable quantities of earthy matter to the sea, to form new deposits at their mouths.

No rest, no change of idea, but ever changing in physical appearance, Nature goes on her wondrous way, working now as steadily, as harmoniously and as surely as she did before time was, and as she will continue to do when time shall be no more. And all the works of Nature, ever changing, yet ever the same, are recorded by the same Power that governs them. "All things," says Emerson, "are engaged in writing their history. The planet, the pebble, goes attended by its shadow. The rolling rock leaves its scratches on the mountain; the river, its channel in the soil; the animal, its bones in the stratum; the fern and leaf, their modest epitaph in the coal. The falling drop makes its sculpture in the sand or the stone. Not a foot steps into the snow or along the ground, but prints, in characters more or less lasting, a map of its march. Every act of the man inscribes itself in the memories of his fellows, and in his own manners and face. The air is full of sounds, the sky of tokens, the ground is all memoranda and signatures, and every object covered over with hints which speak to the intelligent."

Rocks.

We must entirely put away from our minds the idea that the earth we live on was created at once, or as it appeared to the first human beings. Our planet was prepared for man by degrees during millions of years. Therefore, supposing (as is supposed) that the earth came from the sun, we have all the material of the globe in a fused state. As the earth cooled, rocks were formed by pressure, and then water came, and now we can read "books in the running brooks, and sermons in stones," at our leisure.

A *rock*, in geology, is any natural formation of earthy or stony material, whether in the form of sand, gravel, clay, mold, or a compacted mass. In regard to their form and position, the rock masses of the earth's crust may be divided into three classes—stratified rocks, unstratified rocks, and veins.

Stratified rocks are those that lie in layers, or strata. They compose the greater part of the land surface of the earth, forming not only vast plains, but whole mountain systems. To this class belong slate, sandstone, limestone, marl, chalk, etc.

Unstratified rocks are irregular masses, formed, not by the deposit of sediment in beds or layers, but by the gradual cooling of melted matter. They embrace igneous and metamorphic rocks.

Igneous rocks owe their orign to the action of heat, as the stratified rocks do to that of water. Basalt may be mentioned as an example of the igneous rocks. In some regions it constitutes immense beds, and in others forms gigantic columns, as regular as if wrought by art.

Metamorphic rocks are such as were originally stratified, but afterward underwent a change of structure through the agency of heat or chemical action.

Veins are rock-matter filling the cracks of fissures of other rocks. They vary greatly in size and extent. They may be regular or irregular in form, isolated or united in a complex network.

The term *drift* is employed to designate the immense deposits of sand, gravel, clay and boulders, or loose rocks, which exist over a great part of the American continent. The origin of this material is referred to "*Glacial Period*," when, from some cause, a change of climate caused immense masses of ice, either in the form of icebergs or glaciers, to plow their way over the continent, bringing the material from the Archæan beds and depositing it over the existing formations, and at the same time scoring and grooving the underlying rocks.

The Geologic Ages.

There are *seven great geologic ages*, or divisions of time, known as the Azoic, the Silurian, the Devonian, the Carboniferous, the Reptilian, the Mammalian, and the Age of Man. Our knowledge of the plants and animals of the ages preceding the creation of man is derived from their remains dug out of the earth, and called *fossils*.

The Azoic Age is the era, as its name implies, when there was no life, either vegetable or animal, on the globe. The crystalline minerals and all the igneous rocks date back to this age, and hence they are destitute of fossils.

During the Silurian Age, the second in atiquity, there was no terrestrial life; but mollusks—animals with soft, fleshy bodies, without any internal skeleton, like the oyster and the snail—abounded in the waters. The oldest sandstone and limestone belong to this period. Its plant-fossils are sea-weeds.

The Devonian Age was the age of fishes, remarkable for their thick, bony scales. The sea also teemed with shells, corals and sea-weed; while the land, though yet limited in extent, began to be covered with vegetation. Insects, the earliest of terrestrial animals, now first appeared.

The Carboniferous Age, or age of coal, is fourth. From colossal tree-ferns, leaves and branches, deposited in successive centuries, were formed, by gradual decomposition under water, those vast coal-beds on which the industrial pursuits of the present day so largely depend. The animals of this age consisted mainly of insects of various kinds; and inferior tribes of reptiles.

The Reptilian Age was marked by the great number, variety and size of its reptiles, the appearance and habits of which are known from the remains, found buried in the rocks of this period. The rocks of this age are the freestones, extensively used for building, sandstone formations, intersected with ridges of trap of igneous origin, limestone and gypsum, laminated and plastic clays, and chalk-beds, containing layers of flint.

The Mammalian Age was the sixth. The reptiles now dwindled in size and diminished in number, being succeeded by quadrupeds, some of which were much larger than any modern species. The deinotherium, mastodon, megatherium and fossil elephant were among the gigantic animals of this era, while the plants resembled those of the present time, palms, oaks, maples, magnolias, etc., being found in the forests.

The Age of Man is the last of the seven geologic ages. The huge monsters that gave the preceding period its peculiar character became extinct, and were replaced by smaller animals—those we see around. Man was created, and invested with dominion over the earth. This is the "era of the finished world—the era, also, of man's progress and preparation for another and a higher life."

THE EARTH'S SURFACE.

The earth's surface of an area of about 197,000,000 square miles, of which only about one-fourth is land.

Lowlands are tracts, either level or diversified by hill and vale, not elevated more than 1,000 feet above sea-level. *Deserts* are extensive tracts destitute of water, and, consequently, of vegetation and animal life.

Silvas are forest plains. Plains that produce grass, but not trees, are known in North America as *prairies;* in South America as *llanos* and *pampas;* in Asia and Southeastern Europe as *steppes*.

The desert of Sahara, as far as known, consists partly of table-lands and partly of low plains. It is interspersed with *oases*, or fertile spots, which are generally lower than the surrounding country; some of these are of considerable extent and well populated.

A *mountain* is an elvation of land exceeding 2,000 feet in height. A *hill* is less than 2,000 feet in height.

A *mountain-chain* is a long, elevated ridge, or several mountains extending in a line.

Mountains are of great use to man. They attract the clouds, condense their moisture, and store up in reservoirs the water received from them, sending it forth again in streams, from thousands of springs, to fertilize the soil. They increase the surface of the earth, giving variety to its vegetable productions. They protect the adjacent countries from cold and piercing winds, and thus exert a favorable influence on their climate.

An *avalanche* is a large mass of snow, ice and earth, sliding or rolling down a mountain. A water-shed is the mountain-chain or ridge of land which separates one basin from another, and from which the rivers flow.

A *mountain pass* is an elevated road crossing a mountain-chain through a natural opening or depression.

Glaciers are immense masses of ice formed by the accumulated snows upon the mountain tops. They fill in vast valleys, and have an onward motion throughout like a liquid or semi-liquid body. Their course down the slopes is very slow, but, like rivers, they flow faster in the middle than at the bottom and sides. The lower extremities are constantly melting, forming torrents and mountain streams, while the upper parts are fed by the snows. Rocks of immense size are torn off and carried down by glaciers. They occur in the greatest numbers in the Alps. When a glacier reaches the ocean large fragments are broken off and float away as *icebergs*.

VOLCANIC PHENOMENA.

That the interior of the earth has a high temperature, independent of the influence of the sun's rays, seems to be proven by many phenomena. The majority of scientists maintain that the center of the earth is a mass of molten material, and that consequently the temperature increases the nearer this center is approached. This theory seems to accord with the facts in relation to hot springs, artesian wells, volcanoes, etc., although it is maintained by some that these phenomena may be caused entirely by local chemical changes going on within the earth's crust.

Hot Springs.

Thermal or hot springs are most common in mountainous regions, and especially where the earth's crust is most broken and disturbed. Springs of every kind are formed by the rain or melted snow sinking into the earth and issuing from it again at a lower level. The fact that the water is sometimes hot, shows that it must have come in contact with heated rock material within the crust of the earth.

They are found of every grade of temperature from that of slightly above the surrounding atmosphere, to the boiling point. They are found in all parts of the world, the most numerous, perhaps, in Europe.

Geysers

Are *intermittent*, *spouting*, *hot springs*, and have a temperature at the boiling point. They are found in Iceland, New Zealand, and in the "National Park" at the head waters of the Yellowstone River in the Rocky Mountains.

The most celebrated is the *Great Geyser* of Iceland. It consists of an immense well, or funnel, 10 feet wide at its mouth, and about 70 feet deep, surmounted at the surface with a basin 65 feet in diameter and 7 feet deep, formed by the deposit of mineral matter from the water. At intervals it sends up a column of water and steam to the height of 100 feet. More remarkable even than the geysers of Iceland are some that are found in the "National Park." One, the *Giantess*, throws water to the height of 200 feet. Grasshoppers and other insects, and pieces of wood which fall into the waters, soon become incrusted with quartz, which is held in solution by the water, thus permanently petrifying them.

Volcanoes.

A *volcano* is a mountain, or opening in the earth's crust, through which issue fire, smoke, ashes, lava, steam, etc. Volcanoes may be distinguished as extinct and active. Extinct volcanoes are such as are now at rest, but were subject to eruptions in former ages, as is shown by their form and structure, and the presence of craters. Active volcanoes are such as are either in a constant state of eruption, or have eruptions from time to time, with intervals of rest.

Volcanoes throw out an enormous amount of material. Whole islands and portions of continents have been formed by volcanic action. Iceland is an example of a volcanic island.

The *lava*, when it first issues from a volcano, is somewhat like melted iron running from a furnace, but soon cools on the surface and forms a black, porous crust. Sometimes the streams are so thick that the interior remains hot for twenty years.

A terrific eruption of Mt. Vesuvius, A.D. 79, destroyed the flourishing cities of Pompeii, Herculaneum and Stabiae, and covered them with ashes and cinders to the depth of fifteen feet.

About sixty eruptions of Mt. Etna are recorded. In 1669, a stream of lava from this mountain overflowed the ramparts of Catania, sixty feet in height, and destroyed a portion of the city. In 1832, several craters opened in the sides of the mountain, and a stream of lava eighteen miles long, one mile broad, and thirty feet deep, poured over the adjacent fields.

In 1835, the terrible eruption of Conseguina occurred. It lasted three days, during which the light of the sun was obscured over half of Central America, and more than 40,000 square miles are said to have been covered with dust, ashes and lava.

Fields of Fire.

In some localities an inflammable gas issues from openings in the ground. This gas frequently becomes ignited and burns for some time. There is a region of this kind on the western shore of the Caspian Sea. This gas is supposed to be from the decomposition of vegetable matter by internal heat.

Earthquakes.

The second class of volcanic phenomena are earthquakes. These consist of vibrations or tremblings of the earth's crust, and are caused by movements in the fluid interior; but how these movements are produced, is as yet unknown. It is estimated that since the Creation earthquakes have destroyed thirteen million human beings. Scientists assert that not less than twelve shocks of earthquake are experienced in the United States daily, although, of course, they are but slight, and individually unworthy of mention.

An earthquake is generally preceded by unmistakable signs. The electrical condition of the air seems to be changed perceptibly to both men and beasts — the former experiencing oppression and dizziness; the latter uttering cries of distress, running wildly about, or otherwise manifesting uneasiness. The atmosphere is unnaturally still and hazy, and the sun seen through it looks like a ball of fire.

The year 1868 was remarkable for the number and severity of its earthquakes. One of these occurred in the Sandwich Islands, destroying whole villages and many lives. One of the most terrible earthquakes on record occurred in South America, in August of that year. Its center of activity seems to have been at Arica, a seaport of Peru, which was completely destroyed, with two hundred of its inhabitants. The shocks extended throughout the Andes, from the United States of Colombia to Chili, and towns and cities were laid in ruins. It is estimated that more than fifty thousand persons lost their lives by this catastrophe.

The great earthquake of Lisbon occurred November 1, 1755. A rumbling sound beneath the surface was immediately followed by three shocks, so close together that they seemed but one, which threw down the principal part of the city; the sea

retired, leaving the bar dry, and instantly returned in a wave forty feet high, engulfing a great marble quay, to which multitudes had fled to escape the falling buildings. In the space of six minutes, thirty-five thousand persons perished.

The most remarkable earthquake that has occurred in the United States is that of New Madrid, on the Mississippi, in 1811–12. For several months there was an incessant quaking of the ground, which, for a distance of three hundred miles, rose and sank in undulations. The most of the town was submerged.

Readers will remember the earthquake which visited Java in 1882, and also that in Spain the latter part of December, 1884, the shocks continuing into the middle of January, 1885. According to the official record, the number of persons killed in Granada was 695, while 1,480 were injured.

The crust of the earth is in some places gradually and slowly rising; in other places it is sinking. The coast of North America, from Labrador to New Jersey, is slowly rising. The southern part of Greenland is sinking. The Scandinavian peninsula is sinking in the southern part and rising in the northern part. These changes are at the rate of a few feet only in a hundred years. The cause is probably the slow contraction from cooling of the earth's crust.

ISLANDS.

About one-seventeenth of the land surface of our planet is in the form of fragmentary bodies, called *islands*. They may be considered as of two classes: *Continental*, those lying in the near vicinity of the continents, and really forming a part of the continental structure, and *oceanic*, those lying at a distance from the continents, in the midst of the oceans, and differing in structure from the continents.

Oceanic islands are all small and usually occur in groups. Their rock structure is essentially different from that of the continents, and the vegetation and animal life generally peculiar. They may be divided into two classes — *volcanic*, or *high*, and the *coral*, or *low*.

The *volcanic islands* are the summits of active or extinct volcanoes projecting above the water. They are usually considerably elevated, with steep shores, and more or less circular in outline. Some have peaks of great height, as one of the Sandwich Islands, with the peak of Hawaii, fourteen thousand feet above the sea level. Many of them have appeared within the history of man.

Coral islands are among the most interesting phenomena of Physical Geography. They owe their existence to the work of colonies of small radiate animals called *polyps*. The structure of the polyp consists of a cylindrical or sack-like membrane, attached at the bottom to some solid body, and enclosing a second sack, which forms the stomach. At the top is an opening, or mouth, which is surrounded by thread-like organs called tentacles. When expanded, the polyp resembles a flower in form and often in the beauty of its color. The solid coral, which composes the reef, is secreted in the cavity between the outer and inner membranes, as the bones are secreted in the bodies of higher animals. Coral polyps multiply by eggs, to a certain extent, but chiefly by a process of budding similar to the branching of plants. Thus they grow into vast communities, in which generation succeeds generation, each individual leaving behind, as it dies, its contribution to the reef in the form of a small cell of carbonate of lime. The polyps cannot live out of water, and hence their work must cease at low water mark. Fragments of the coral structure are broken off and thrown upon the top of the mass by the waves, and thus in the course of time a *reef*, as it is called, is formed, projecting from the water. Upon this reef a vegetation finally springs up from the seeds which the winds and waves bring, and a soil is formed from the pulverized coral, drifted material and decayed vegetation. The reef-building polyps exist only in tropical regions, or where the water never gets below the temperature of 68° F.

WATER.

This all-important and ever-present liquid is a chemical combination of two gases, oxygen and hydrogen — eight parts of the former by weight being combined with one of the latter. When pure, it is destitute of color, taste and smell; but, as it readily absorbs gases and dissolves many solids, it is seldom found in this state.

The large body of water covering by far the greater part of the earth's surface is called the ocean. There is really but one ocean; but the continents partially divide it into five basins, which we distinguish by different names, as the Atlantic, Pacific, Indian, Arctic, and Antarctic Oceans.

The bottom of the ocean is supposed to be diversified with depressions and elevations — with low plains, plateaus and mountains — like the land; hence the depth differs in different parts. Some of the researches lately made by English explorers in regard to deep-sea beds have, however, led to the belief that there are no rough ridges, abrupt chasms nor bare rocks, and that the sea bottom, at great depths, is not affected by currents or streams — even by those of the magnitude of the Gulf Stream — its general appearance rather resembling that of the American prairies, and it is everywhere covered by a kind of mud. The greatest depth shown by soundings is eight and three-quarter miles. The mean depth of the whole body of the ocean is estimated at four miles.

The color of the ocean is a beautiful sky-blue where the depth is great, but in shallow water, yellowish tints, reflected from the bottom, mingle with the blue, and produce a grayish green.

Phosphorescence, one of the most beautiful of marine phenomena, is a brilliant light occasionally observed in the sea during dark nights, particularly in tropical regions. Sometimes the crests of the waves, the spray thrown up by the ship's bow, and the wake she leaves behind, look as if they were on fire. This phenomenon is produced by myriads of animalcules, which have the property of emitting light from their bodies, like fire-flies. A hundred of them have been found in a single drop of sea-water.

The Oceanic Movements.

The great body of the ocean is never at rest; not only is the surface agitated by the winds, but even at great depths the water moves from one region to another.

There are four oceanic movements, viz.: waves, tides, currents and whirlpools.

Waves are ridges of water, produced by the friction of winds on the surface. Tides are alternate risings and fallings of the waters of the ocean.

Tides are produced by the attraction of the moon and sun—principally that of the former—acting with different degrees of force on different parts of the earth. Were the moon the sole cause of the tides, they would always be of the same height; but the sun also exerts an attraction, which, according as it acts with or against that of the moon, increases or diminishes the height of the tide.

The *currents* are vast streams which traverse the ocean, and keep its waters in perpetual circulation. The principal of these are the Gulf Stream, the Equatorial, Japan, Antarctic and Arctic currents.

The Gulf Stream.

The most important of the oceanic currents is the Gulf Stream, so called from the Gulf of Mexico, out of which it flows into the Atlantic, through the Strait of Florida. It is from twenty-five to one hundred and fifty miles in width, and moves with a velocity of from one and one-half to five miles an hour, the water being much warmer than other parts of the ocean near it. Its color is of a deep indigo blue, strikingly different from the green of the surrounding ocean. A branch of this vast body of warm water, constantly flowing past the western coast of Europe, exerts a most genial influence on the climate. Even many miles in the interior the air is tempered by west winds, warmed by contact with this great stream. The Gulf Stream carries the heat of the Caribbean Sea across the Northern Atlantic to the shores of Scotland and Norway. This tropical river, flowing steadily through the cold water of the ocean, rescues England from the snows of Labrador. Should it, by any chance, break through the Isthmus of Panama, Great Britain would be condemned to eternal glaciers.

The Equatorial Currents.

An equatorial current crosses the Atlantic from the coast of Africa to the neighborhood of Cape St. Roque. It there divides into two branches, a northwesterly and a southwesterly, each of which follows the South American coast—the former making its way into the Caribbean Sea and the Gulf of Mexico.

In the Pacific two equatorial currents are found—one north and the other south of the equator. The former, turning to the northeast near the Loo Choo Islands, continues under the name of the Japan current. The south equatorial current of the Pacific consists of two branches, one of which, striking the Australian coast, divides into a northwesterly and a southwesterly branch, as does the Atlantic equatorial current on the coast of Brazil; the other, farther north, turns near the Caroline Islands, and reverses its course, crossing the Pacific again in a direction nearly due east to South America, under the name of the Equatorial counter-current.

The Japan Current,

In the Pacific, bears a remarkable resemblance to the Gulf Stream in the Atlantic. Impelled by the Pacific equatorial current, it sweeps from the China Sea along the Asiatic island chains, in a northeasterly direction, toward the Aleutian Islands and Alaska, the climate of which it improves, as the Gulf Stream does that of Northwestern Europe. Between the Japan current and the main land, a cold current sets in the opposite direction, as in the case of the Gulf Stream.

The Antarctic Current,

Which enters the Atlantic, runs in a northwesterly direction to the southern extremity of Africa, and thence along its western coast until it joins the Equatorial near the Gulf of Guinea. That which sets into the Pacific flows along the South American coast, under the name of the Peruvian or Humboldt current, and is merged in the Equatorial west of the Gulf of Guayaquil. The Antarctic current, belonging to the Indian Ocean, runs along the western coast of Australia, and unites with the Equatorial just north of the Tropic of Capricorn.

From the Arctic Ocean two cold currents set to the south, one on each side of Greenland. Uniting at the mouth of Davis Strait, they continue their southerly course as far as Newfoundland, where part of this broad Arctic river, as an under-current, flows beneath the Gulf Stream, and the rest, as a surface-current, keeps inside of this stream, close to the American shore as far south as Florida.

Whirlpools are circular currents, which occur in certain localities.

Inland Waters.

The inland waters of the earth are springs, rivers and lakes.

The rain or melted snow and hail which sinks into the earth, penetrates the crust until it reaches an impervious strata, when it runs along until it finds an outlet at the surface in the form of a *spring*, or gathers into underground reservoirs, some of which, by their peculiar formation, having an outlet in the form of a siphon, form *intermittent springs*.

The drainage from the surface and the water from springs form small streams which unite to form *rivers*. When the water from streams and from the surface collects in depressions on the earth's surface, it forms *lakes*.

Lakes may be divided into classes, as follows: (1) Those having inlets, but no visible outlets. (2) Those having outlets, but no apparent inlets. (3) Those having no apparent outlets or inlets. (4) Those having both inlets and outlets.

The Caspian Sea, Aral Sea and Great Salt Lake are examples of the first class. Such lakes are usually salt. The water is either all lost by evaporation or is absorbed by the earth. Lakes of the second class are usually found in mountainous regions, and are the source of some large rivers. The water evidently comes from springs and rises until it runs over the basin. Lake Albano, near Rome, is an example of the third class. Such lakes are usually situated in elevated regions, are supposed to be

the craters of extinct volcanoes, and are fed by springs. Lakes of the fourth class are by far the most common.

When water evaporates, all impurities are left behind; hence rain water is not salt like the ocean. The water of springs, rivers and lakes is, therefore, pure and fresh, unless it comes in contact with foreign matter that it is capable of dissolving.

THE AIR.

The earth is surrounded by an elastic fluid called air, which enters the minutest pores, and therefore exists in every substance.

Air, like everything else, is attracted by the earth, hence it has weight, although experiments show that it is 815 times lighter than water.

Air is essential to the transmission of sound, to combustion, and to life.

CLIMATE.

Climate is the state of the atmosphere in regard to temperature, winds, moisture and salubrity.

The climate of a place as regards temperature depends upon:

Latitude.—The general law is that the amount of heat is greatest at the equator, and diminishes toward the poles. There are three reasons for this: 1. The sun's rays fall perpendicularly upon the earth at the equator, and more and more obliquely as we go toward the poles. 2. The area covered by a given amount of heating power from the sun is smaller at the equator. 3. Where the sun's rays fall perpendicularly they pass through a less amount of atmosphere, and the absorption of heat is less.

Altitude.—The decrease in temperature is about three deg. F. for every 1,000 feet of elevation. As the air receives most of its heat by radiation and reflection from the earth, and as the higher we go the less dense the air, the less heat is absorbed either from the earth or from the direct rays of the sun.

Prevailing Winds.—Winds blowing from the tropical regions carry the heat with them, and conversely, winds from the polar regions lower the temperature. Whichever wind prevails throughout the year in a given place will consequently modify the temperature of that place.

Length of Day.—During the day the earth receives from the sun more heat than it radiates into space; while during the night it radiates more than it receives. Hence a succession of long days and short nights results in an accumulation of heat, raising the average temperature and producing summer; while long nights and short days result in a temperature below the average, producing winter. The heating power of the sun is greater in summer, because at that season it is shining more directly upon that part of the earth, and conversely in winter. In the tropical regions the inequality of day and night is very little, but increases toward the poles. The temperature in the tropics is therefore more uniform. The length of day makes up for the lessened intensity of the sun's rays; hence a place in high latitude may have at times higher temperature than a place within the tropics.

Ocean Currents.—The warm waters of the tropical regions being brought toward the polar regions bring the heat with them, radiating it into space, and it is absorbed by the atmosphere.

Mountain Ranges.—A mountain range will make a country near it warmer or colder, according as it shields it from a cold or warm wind.

The Distribution of Land and Water.—Land heats or cools rapidly, absorbing or emitting but little heat. Water heats or cools slowly, absorbing or emitting large quantities of heat. Hence the land is subject to great and sudden changes of temperature; the water to small and gradual changes. Places situated near the sea have, therefore, a more equable climate.

Character of Soil.—Dry, sandy soil heats and cools more rapidly than wet and marshy lands; hence the latter will have a more uniform temperature.

Slope of Land.—Land which slopes so that the sun's rays will strike it nearer vertically will receive more heat. The south side of a hill is warmer in winter than the north side.

In regard to *winds* the climate of a place depends upon:

Temperature.—As winds are but masses of air set in motion by the unequal heating, the winds of any given place depend primarily upon the temperature, though not necessarily upon the temperature of that place. As the air is heated in the tropical parts of the earth by the sun, it rises, and colder air flows in from the polar regions to take its place; hence the primary currents, which are modified in various ways by other causes.

Rotation of the Earth.—The winds are turned out of their course by the rotation of the earth in the same manner as the ocean currents.

Land and Water.—The land becomes warmer during the day than the sea, and, the air rising, a cooler air flows in from the sea. At night the land parts with its heat more rapidly than the water and becomes cooler; then the wind sets the other way. Hence we have the land and sea breezes.

Elevation of the Land.—Mountains, as has already been stated, shelter places from winds. Some of the great plains are subject to almost constant winds.

In regard to *moisture*, the climate of a place depends upon:

Prevailing Wind.—If a wind blows from large bodies of water in a warm region it will be laden with moisture which will be likely to be precipitated on reaching a colder country.

Mountains.—The contact of a moisture-laden wind with the cold sides of mountains will cause a precipitation of its moisture, and the regions beyond the mountains will not receive it.

Forests, by shading the earth, keep its surface cool, and this tends to condense the moisture.

Cultivation of the Soil, causing it to absorb moisture from the atmosphere, and by capillary attraction in dry weather bring up moisture from below to the surface.

Temperature.—Increased heat causes greater evaporation, and hence more moisture in the atmosphere. More rain falls within the tropics than in the temperate or polar regions.

Land and Water.—More rain falls on the coasts of a country than in the interior, because the winds are more moist. More rain falls in the northern hemisphere than in the southern because there is a greater diversity of land and water, the evaporation coming mainly from the ocean, and the condensation from the diversified land surface.

Isothermal lines are lines connecting places that have the same mean temperature.

There is a line or limit of elevation, above which the surface is covered with perpetual snow; this is called the *snow-line.*

WINDS AND WEATHER.

Wind is air in motion. Winds have a purifying effect upon the atmosphere; they dissipate unhealthy exhalations; they transport vapors from the sea to moisten and fertilize the land; they carry the seeds of plants far and wide, and thus extend the empire of vegetation; finally, they waft our ships, and are, in some countries, made available as a motive power for machinery.

The cause of winds is the difference of heat received from the sun in different places. The heated air expands, becomes rarefied, and rises. The cooler air immediately rushes in from the surrounding parts, to restore the disturbed equilibrium.

The *trade-winds* are so named because, by their regularity, they favor commerce. They are produced as follows: The equatorial regions being most intensely heated, a current of rarefied air is there constantly ascending, while colder currents from the north and south set in toward the equator to fill its place. When these reach the ascending current, having in turn become rarefied, they follow it in its upward course, and thus air is withdrawn from the higher latitudes, and accumulated in the equatorial regions.

Whirlwinds are bodies of air that have a rotatory or spiral motion, and are usually caused by the meeting of contrary winds.

When a whirlwind occurs on a sandy plain or desert, great quantities of fine sand are carried up to a great height in the atmosphere, and move with the revolving body of air, forming what are called sand-pillars.

The *Sirocco*, which in some places is a warm, damp wind, in Madeira is a hot wind, and likewise in Sicily, where it is equally warm and damp like steam.

The *Simoon* is a very hot wind, raising sand-storms in the deserts, and experience has shown it to be very prejudicial to life in consequence of the fine sand and the tremendous heat it carries with it. Then we have the *Hurricane*, from "Ouracan," of the Caribs; the *Typhoon*, or Tae-fun, of China, so called from the dreaded god Typhon of Egypt; and the *Tornado* and *Cyclone*—all violent winds, and circling round, causing, so to speak, whirlwinds, by which trees are uprooted and houses destroyed.

In hurricanes, tornadoes, etc., the rotatory motion of the air is from right to left in the northern hemisphere, and from left to right in the southern.

Water-spouts are whirled up by the winds in spiral columns of water, and when permitted to come near a ship at sea, or when they break upon land, which is seldom, are very destructive.

Dew and Hoar-Frost.

When air charged with moisture comes in contact with a solid surface colder than itself, aqueous vapor is precipitated on this surface as dew. The grass at night becomes cooled by radiation, and thus condenses upon its surface the vapor of the air. Dew will gather most freely upon those objects that are the best radiators, as they will the soonest become cool. Thus grass, leaves, etc., which need the most, get the most.

Dew will not form on windy nights, because the air is constantly changing, and does not become cool enough to deposit its moisture. A heavy dew is a sign of rain, because it shows that the moisture of the air is easily condensed.

If, during the precipitation of dew, the temperature falls to the freezing-point (32° F.), hoar-frost is formed. This consists of minute ice-crystals, and is nothing more than frozen dew. Frost will not form on cloudy nights, because the clouds act like a blanket, to prevent radiation, and keep the earth warm.

Fogs.

Fogs are formed when the temperature of the air falls below the dew-point (*i. e.*, the temperature at which dew is deposited). They are found mainly on low grounds, and in the vicinity of rivers, ponds, etc., where the abundance of moisture keeps the air constantly saturated.

Clouds.

Clouds are collections of visible vapor suspended in the atmosphere, at altitudes ranging from one to five miles. Vapor consists of particles of water so fine and light that they float in the air like dust.

Mountains are "cloud-capped," because the warm air rising from the valley is condensed upon their cold summits. Clouds are constantly falling by their weight; but, as they melt away in the warm air below, by condensation they increase above.

The *nimbus* cloud is a dark-colored cloud, from which rain falls.

The *stratus* cloud is composed of broad, widely extended cloud-belts, sometimes spread over the whole sky. It is the lowest cloud, and often rests on the earth. It is the night cloud.

The *cumulus* cloud is made up of large cloud-masses, looking like snow-capped mountains piled up along the horizon. It forms the summits of pillars of vapor, which, streaming up from the earth, are condensed in the upper air. It is the day cloud; and, when of small size and seen only near midday, is a sign of fair weather.

The *cirrus* cloud consists of light, fleecy clouds floating high in air. It is believed to be formed of spiculæ of ice or flakes of snow.

The *cirro-cumulus* is formed by small, distinct, rounded portions of the cirrus cloud, which separate from each other, leaving a clear sky between. It accompanies warm, dry weather. The *cirro-stratus* is produced when the cirrus cloud spreads out into long, slender strata. It forebodes storms. The *cumulo-stratus* presents the peculiar forms called "thunder-heads." It is caused by a blending of the cumulus with the stratus, and is a precursor of thunder-storms.

Rain—Snow—Hail.

When the minute vapor-particles of clouds combine and grow too heavy to float in the air, they are precipitated as *rain*—or, at a temperature below the freezing-point, as *snow* or *hail*.

Snow is frozen vapor, with its particles aggregated in flakes. *Hail* is frozen rain.

Snow is an important agent in the economy of nature. Being a non-conductor of heat, it protects the roots of the grasses and the winter grains from severe frosts. Collecting in great masses on lofty mountains and gradually thawing, it feeds streams, which carry fertility and wealth to extensive districts.

Lightning and Thunder.

Lightning is a discharge of atmospheric electricity, accompanied by a flash of light.

Heat-lightning is either the reflection of distant flashes on the clouds, or the frequent and therefore weak and silent discharge of electricity from the clouds through a moist atmosphere.

Lightning cleaves the air with inconceivable rapidity, and leaves a vacuum behind it, into which the surrounding air rushes with great force, and with a loud, crackling sound, which we call thunder.

Lightning and thunder take place at the same instant, but we see the former before we hear the latter. This is because light travels with much greater velocity than sound.

Thunder-storms are most frequent within the tropics during the rainy season.

The Aurora Borealis.

The *aurora borealis* is a luminous appearance, which at times imparts wonderful beauty to the polar skies at night, and is also of occasional occurrence in the temperate latitudes. It is supposed to be produced by the passage of electric currents through strata of highly rarefied air.

Mirage.

Mirage (sometimes called *Fata Morgana*) is the appearance in the air of the image of some distant object, seen either in connection with the object itself, above or below the latter, or suspended in the air, the object being invisible. It is a very curious but sufficiently common phenomena, and in the Asiatic and African plains it is frequently observed. When the weather is calm and the ground hot, the Egyptian landscape appears like a lake, and the houses look like islands in the midst of a widely-spreading expanse of water. This causes the *mirage*, which is the result of evaporation, while the different temperatures of the air strata cause an unequal reflection and refraction of light, which give rise to the mirage. Travelers are frequently deceived, but the camels will not quicken their usual pace until they scent water.

The Fata Morgana and the inverted images of ships seen at sea are not uncommon on European coasts. Between Sicily and Italy this effect is seen in the Sea of Reggio with fine effect. Palaces, towers, fertile plains, with cattle grazing on them, are seen, with many other terrestrial objects, upon the sea—the palaces of the Fairy Morgana. The inverted images of ships are frequently perceived, and many most extraordinary but perfectly authentic tales have been related concerning the reflection and refraction of persons and objects in the sky and on land, when no human beings nor any of the actual objects were within the range of vision.

THE ANIMAL KINGDOM.

Zoölogy is that science which treats of animals, their structure, habits and classification.

There are four principal divisions of animals, based on distinct types of structure, and including all the denizens of the earth, the water and the air. Following are the divisions of the animal kingdom, beginning with the lowest:

SUB-KINGDOMS OR DIVISIONS.	CLASSES OF SUBDIVISIONS.
I. PROTOZOA—First-living things, or lowest form of animal life.	1. Amœba, sponges, proteus, etc. They have no mouth, and no distinct members, but are capable of making many changes in their form.
II. RADIATA—Radiates, that is, such as are shaped like a star or flower, and have their organs arranged uniformly around a common center.	1. Coral animals, sea-anemones, etc. 2. Jelly-fishes, sea-nettles. 1. Star-fishes, sea-urchins.
III. MOLLUSCA—Mollusks, that is, soft-bodied, without joints, and without vertebræ, but usually protected by a shell.	1. Bryozoa, that is, moss animals; as sea-mats, white sea-weeds, etc. 2. Brachiopods, that is, with arm-feet, or spiral appendages; as the lingulæ, spirifers, etc. 3. Ascidians, that is, pouch-like; as salpæ, etc. 4. Acephals, that is, headless; as oysters, etc. 5. Cephalates, that is, with heads; as snails, etc. 6. Cephalopods, that is, with heads and feet, or, more strictly, tentacles.
IV. ARTICULATA — Articulates, that is, animals having the body and members jointed, but without an internal skeleton.	1. Worms, as earth-worms, leeches, etc. 2. Crustaceans, as crabs, lobsters, etc. 3. Centipedes, etc. 4. Spiders, etc. 5. Beetles, butterflies, etc.
V. VERTEBRATA — Vertebrates, that is, animals that have a backbone, and an articulated or jointed skeleton, and a great nervous cord, the spinal marrow, enclosed in a bony sheath.	1. Fishes. 2. Reptiles, that is, creeping things, as turtles, frogs, snakes, lizards, etc. 3. Birds, that is, "Every winged fowl." 4. Mammalia, that is, animals with teats.

The last class, Mammalia, is further subdivided into fourteen orders, of which the most distinctive, still ascending from the lower to the higher, are four, namely:

1. Cetacea, that is, of the whale tribe.
2. Quadrupeds, that is, four-footed animals generally.
3. Quadrumana, that is, four-handed; as the gorilla, chimpanzee, ape and monkey.
4. Bimana, that is, two-handed; of which the only representative is man.

ETHNOLOGY.

Ethnology is that science which treats of the division of man into races, with their origin, relations and characteristics. Naturalists divide mankind, according to certain physical characteristics, into varieties, or races. Authorities differ greatly in this classification. Cuvier made three races; Pritchard, seven; Agassiz, eight, and Pickering, eleven; but the classification most commonly accepted is that into five races, as made by Blumenbach, as follows: The Caucasian, European, or white race; the Mongolian, Asiatic, or yellow race; the Ethiopian, African, or black race; the American Indian, or red race; the Malay, or brown race. The first three are much more clearly marked, and are considered by Guyot as *primary* races; the others, being modifications of these three, he designates as *secondary* races. Because of the blending of types, it is difficult to make a classification, hence the difference among authorities. The points on which the classification is based are mainly the size and proportions of the body, the shape of head and the features, the hair and beard, and the color of the skin

The *Caucasian race* are characterized by tall stature, oval head and face, high forehead, regular features, abundance and softness of hair and beard, and usually fair skin, but in some it is tawny or swarthy, as in the Hindoos, Arabs and others. They stand at the head in intelligence and civilization. This race is represented by the principal inhabitants of Europe and their descendants in America, and by the inhabitants of India, Arabia and of Western Asia and Northern Africa.

The Germanic nations are descendants of the numerous tribes of the ancient German stock that destroyed the Roman empire and erected different states upon its ruins.

The Romanic nations occupy Southern Europe, and are so called because their languages are mostly derived from the Latin spoken by the ancient Romans. They are mixed nations, descended partly from the ancient Pelasgians and partly from other branches of Aryan stock.

The Italians derive their origin from the Romans, German Longobards and Normans, with a slight intermixture of the Arabic stock.

The Spanish and Portuguese have sprung from a mixture of Celts, Romans, Germans and Arabs.

The *Mongolian race* are distinguished by short stature, round head, wide face, high cheek bones, obliquely set eyes, coarse straight hair, scarcely any beard, and yellowish color of the skin. They are distributed over the whole of Eastern Asia, except in India, and include the Esquimaux of the northern part of North America.

The *Ethiopian race* are characterized by medium stature, generally ungainly form, low and retreating forehead, head full back of the ears, flat, broad nose, projecting jaws, thick lips, short, curly hair, and skin generally black or dark. They occupy all of Africa, except the northern part, and many of their descendants are found in America.

The *American race* resemble the Mongolian, but the head is not so round, the face less wide and flat, the eyes horizontal, the hair black and straight, and beard scanty, and the skin a reddish or copper color. They occupy North and South America, except on the Arctic shores.

The *Malay race* resemble also the Mongolian, but have thicker lips, horizontal eyes, hair less straight, generally full beards, and color usually brown. They occupy the Malay peninsula and the islands of the Pacific and Indian Oceans.

The number of *languages* spoken on the earth is estimated at eight hundred and sixty, embracing about five thousand dialects. The language spoken by the greatest number is the Chinese; the one most widely spread is the English.

In regard to *religion*, mankind may be divided into two general classes: *Monotheistic*, those who worship one god, and *polytheistic*, those who worship more than one god, also called pagans, or heathens. Of the first class we have: (1) the *Christian*, which recognizes the Bible as the revealed word of God, and Jesus Christ as the Son of God; (2) the *Jewish*, which recognizes the Old Testament as the word of God, but does not acknowledge Christ; (3) the *Mohammedan*, or the religion of *Islam*, whose two articles of faith are, "There is no god but God, and Mohammed is the Prophet of God."

Of the second class there are: (1) *Brahminism*, or *Hindooism*, the religion of the people of India, a very ancient religion which has many good moral doctrines, but strange ideas of a future state; (2) *Buddhism*, an offshoot of Brahminism, now practiced by the people of China and Japan, founded by Sakya-Muni, who adopted the title of Buddha (the enlightened), a religion which has been more enthusiastic in making converts than any other, except Christianity, and has many good moral precepts, but is practically atheistic; (3) *Fetichism*, a very low form of superstition, which consists in the worship of material objects, either living or dead, as animals, or idols of wood or stone.

In regard to *general culture and intelligence*, mankind may be divided into: (1) *Savages*, those who are scarcely elevated above the brutes, live in tribes and subsist by hunting and fishing; (2) *Barbarians*, those who have possessions, as flocks and herds, and practice agriculture to some extent, yet have made no progress in arts and sciences; (3) *Half-civilized*, those who have made some progress in the arts, have towns and cities, but depend chiefly upon agriculture; (4) *Civilized*, those who have made considerable progress in science and art, engage in commerce and have a written language; (5) *Enlightened*, those who stand at the head of the scale, have a division of labor, systems of education, and have made the greatest progress in science, art, and in morality.

The principal forms of *government* are: (1) The *monarchical*, that form where one person exercises chief power, to which he succeeds by inheritance, and holds for life. (2) *Republican*, where the power is vested in men who are chosen by the people for a limited period. An *absolute monarchy* (despotism) is one where the ruler has unlimited or absolute power, his will being the sole law. A limited or constitutional monarchy is one where the ruler's power is limited by a constitution, or laws made by the representatives of the people. In a monarchical government the ruler receives various titles in different countries, as *emperor*, *king* or *queen*, *czar*, *sultan*, *shah* and *mikado*. In a republican government the chief officer is called a *president*.

ANIMAL AND VEGETABLE LIFE.

The animals of a country taken together are called its *fauna*, while its flowers and vegetation are denominated *flora*.

The frigid zones produce very scanty vegetation, mosses and lichens, and some stunted specimens of the higher forms, as the willow, birch and pine. The animal world is much more varied as to species. Here are found the reindeer, the musk ox and the white bear, and many smaller fur-bearing animals on the land; while, in the sea, or on its shores, are found whales, walruses, seals and water-fowls of many species.

In the torrid zone is found the most dense and varied vegetation, flowers of the most brilliant hue and of the largest size, the most delicious fruits, the most powerful aromatics, the most valuable woods; in fact, the most of those productions which add to the luxuries of life. The animal world is represented by the greatest number of species, among which are those of the largest size, the most powerful and active, and the most intelligent. It is the home of the elephant, the giraffe, the lion, the tiger, the monkey, the ostrich, the condor, parrots, and of reptiles of the largest size, as the crocodile and boa constrictor, as well as those of the most poisonous character.

In the temperate zones are found the vegetation most useful to man, as the oak, the pine, the maple and other useful timber trees; the indispensable grains, as wheat, maize, barley, rye; the useful fruits, as the apple, peach, pear, etc., and the fabric plants, as flax and cotton. The animal kingdom is represented by the bear, the bison, the elk and deer, the wolf; and the domestic animals so useful to man, as the horse, the ox, sheep and goats; and many species of fowl, as pigeons, ducks, geese, turkeys, etc.

MINERALS AND METALS.

The prosperity and wealth of a country depend largely upon its mineral resources. Nature has bestowed her wealth in lavish abundance, asking only the labor of man to make it useful. As

a rule the useful and valuable minerals are found in rocky or mountainous countries. These countries not being adapted to agriculture, the people find employment in mining and manufacturing the raw material which is stowed away in their hills, depending for subsistence upon commerce with their agricultural neighbors of the plains. On the other hand, the inhabitants of the plains must depend upon their neighbors of the hills for material which adds to their comfort and convenience. Wherever that most useful of metals, iron, is found, near by is always found coal, which is necessary in reducing the iron to useful forms. Timber also grows abundantly on the mountains. This, too, is necessary to the manufacturer. The streams of hilly countries have greater fall, and are thus adapted for water power, which also adds to the advantages.

Many minerals occur near the surface of the earth, in alluvial soil or the sandy beds of rivers; but the greater part lie deep in the ground, and are obtained with more or less labor by mining.

The most important metals are gold, silver, platinum, mercury, iron, lead, copper, tin, nickel, zinc and antimony.

The richest silver mines in the world are those of Mexico. Iron is found in the greatest abundance in different parts of the United States and Europe. The great lead mines of the United States lie on each side of the Mississippi River, in Northwestern Illinois, Southwestern Wisconsin, and Iowa, and in Missouri, south of the Missouri River. The richest and purest copper mines in the world lie on the shores of Lake Superior, in Northern Michigan, where blocks of native copper weighing 80 tons have been found. Zinc occurs in the Appalachian region, particularly New Jersey and Pennsylvania; also in Illinois, Missouri, Wisconsin and Tennessee.

Some Strange Metals.

Some of the metals, familiar enough to the chemist, though rarely seen outside his laboratory, have so little in common with the metals of everyday life as to scarcely seem to belong to the same class of substances. We commonly think of a metal as being heavy, yet sodium and potassium will float on water, and lithium is the lightest of all known solids. The fact is, that the word "metal" is one of the hardest in the language to define. The metals all have a peculiar luster, to be sure, which, from its association, has come to be called metallic; but many minerals, as galena and black-lead, which most certainly are not metals, have the same appearance, and so on, through the list of properties. The chemical relations of the metals give good reasons for placing these substances by themselves, though even here the lines are not clearly marked.

One of the most distinctive properties of the metals is their power to form, when combined with acids, a class of bodies called salts—on account of their resemblance to common salt—which contains about 40 per cent of the metal sodium. This metal is a bluish white, waxy solid, and has such a great tendency to rust, or unite with the oxygen in the air, that it must be kept in some oil, like petroleum, which contains no oxygen.

If a bit of sodium be thrown upon a piece of ice, the metal takes fire, and any attempts to put it out by pouring water on it would only be adding fuel to the flame. The sodium-match is an application of this peculiar property of the metal. It is merely a bit of wood tipped with sodium, and which can, of course, be lighted on the stormiest day by the mere contact of a raindrop. The matches are, however, decidedly dangerous, and their manufacture is generally prohibited.

Potassium, which is obtained from potash, is another metal very similar to sodium, and will take fire upon ice or water even more readily than this last-named metal. A small piece of potassium thrown into a jug of water apparently takes fire at once, and swims about with great rapidity, burning all the time with a brilliant violet flame

One may be forgiven if his ideas on combustion are somewhat upset by the first sight of this phenomenon, but there is really nothing very strange about it. Water is a compound of hydrogen and oxygen, and these metals, sodium and potassium, have so strong an attraction for oxygen that they will take it wherever they can find it, even from water. This, of course, sets the oxygen free, which is set on fire by the heat given off when the potassium and oxygen unite, and burns with a violet color because of the vapor of the metal. The same is true in the case of sodium; the flame is due to the burning hydrogen rather than the metal.

Sodium, potassium, and lithium, with several other metals, form a group known as the alkali metals. There is another group, to which iron belongs, which contains an interesting member called aluminum—sometimes aluminium—from its occurrence in common alum.

Aluminum is a beautiful metal, much like silver in appearance, and possessing many valuable properties. It is very sonorous, easily worked, does not tarnish in the air, and is only about one-fourth as heavy as silver. It conducts electricity eight times better than iron. Added to this, it occurs in greater quantity than any other metal in the world. Every clay-bank, every granite-bed, is a bed of aluminum, but as yet no cheap and ready means of obtaining the metal has been found in spite of all attempts. Napoleon offered a large reward to any one discovering such a process. As late, however, as 1878, the metal was still a curiosity; and up to 1889 the total output of the world from all sources, French, English, German and American, had been less than 116 tons. The total production of the United States in 1889 was 47,468 pounds, valued at $97,335. The stage of actual production having been reached, the all-important feature of the industry now is the effort by new processes to reduce the cost of making the metal; some of the present unfamiliar and elaborate metallurgical processes being reproductions on a large scale of experiments which are not ordinarily used even in chemical laboratories. This interesting and valuable metal lies hidden everywhere about us, and a princely fortune awaits the man who can bring it to the light.

COMMERCIAL LAW AND FORMS.

Notes, Bills, Orders, Checks, Drafts and Receipts Properly Drawn for Every State.

EVERY business man has felt the necessity of a simple and thorough explanation of the legal principles and usages which underlie all business transactions. The law presumes that no man is ignorant of the law, and consequently, when such vital issues are at stake, no one can afford to be ignorant. Not a day passes by in a large counting-house that some question does not arise which involves legal knowledge in its correct solution. To those who have felt the need of a safe and simple adviser in those every-day difficulties of trade, we will offer the chapters which follow. All the matters included in the routine of business will be found fully treated, while such explanations are appended as will make the study one in which a mistake will be found impossible.

All men should know so much of the ordinary law as protects their common and universal rights, and it must be admitted by every student that business men should understand the most general laws of business—the law of partnership; how to make agreements; how to conduct sales; how to draw notes; how to collect them, and the like. Knowledge of the principles of business law will prevent, every day, important mistakes leading to trouble and loss. The laws have here been made plain by themselves, so that a thorough and satisfactory answer is at hand for every question.

The forms given will be found exceptionally complete and accurate, having been prepared with care and examined with close scrutiny.

NEGOTIABLE PAPER.

Confidence is the broad foundation on which the whole superstructure of business, as it exists to-day, has been built. The steps in this progress have been, first, barter in kind, the exchange of a bushel of wheat for a handful of arrow-heads, as business is still conducted among the savages; next, the substitution of money as a medium of exchange; and finally, the substitution of negotiable paper, that is, documentary evidence of debt, for money, completing the progression. Negotiable paper includes promissory notes, due bills, drafts, checks, certificates of deposit, bills of exchange, bank bills, Treasury notes (greenbacks), and all other evidences of debt, the ownership of which may be transferred from one person to another.

The mere acknowledgment of debt is not sufficient to make negotiable paper; the *promise* of payment or an *order* on some one to pay is indispensable. This promise must be for money only. The amount must be exactly specified. The title must be transferable. This feature must be visible on the face of the paper by the use of such words as "bearer" or "order." In some of the States peculiar phrases are ordered by statute, as "Payable without defalcation or discount," or "Payable at ———," naming the bank or office.

Promissory Notes.

A written agreement, signed by one person, to pay another, at a fixed time, a stated sum of money, is a promissory note. It becomes negotiable by being made payable to an order on

some one or to bearer. As it is a contract, a consideration is one of its essential elements. Yet, although it be void as between the two first parties, being negotiable and coming into the hands of another person who gives value for it, not knowing of its defect, it has full force and may be collected.

The date is of great consequence on all such paper. In computing time, the day of date is not counted, but it is the fixed point beginning the time at the end of which payment must be made. Omission of the date does not destroy a note, but the holder must prove to the time of its making. The promise to pay must be precise as to time which the note is to run. It must be at a fixed period, or conditional upon the occurrence of something certain to happen, as "at sight," "five days after sight," "on demand," "three months after date," "ten days after the death of John Doe." The time not being specified, the note is considered "payable on demand," and suit may be entered immediately.

The maker, the person who promises and whose signature the note bears, must be competent. Insane people and idiots are *naturally*, and aliens, minors and married women may be *legally*, incompetent. The maker is responsible and binds himself to pay the amount stated on the note at its maturity. He need not pay it before it becomes due, but should he do so and neglect to cancel the note, he would be again responsible if any other person, without knowledge of such payment, acquired it for value before maturity. Even a receipt for payment from the first payee would not stand good against the subsequent holder.

The payee is the person in whose favor the note is drawn; the legal holder, the person to whom the money must be paid. When a note is made payable simply to bearer, without naming the payee, any one holding the note honestly may collect.

A subsequent party, one who comes into possession of the note after the original holder, has a better claim than the first one, for the reason that between the maker and the first payee there may have been, in the contract, some understanding or condition militating against the payment when it would become due, but the third person, knowing nothing of this, gives his value and receives the note. The law will always sustain the subsequent party.

The endorser is held responsible if the maker fails to pay when the note arrives at maturity. A note payable to order must be endorsed by a holder upon passing it to another, and, as value has been given each time, the last holder will look to his next preceding one and to all the others.

A note, being on deposit as collateral security, becoming due, the temporary holder is the payee and must collect.

Endorsements.

The following form will illustrate the shape in which a note should be drawn and endorsed. An endorsement is a writing across the back of a note, which, as will be seen further on, makes the writer responsible for the amount of the note.

COMMON FORM OF NEGOTIABLE NOTE, WITH ENDORSEMENTS.



$2,500. *Brooklyn, N. Y., May 1st, 1893.*

Four months after date I promise to pay to the order of L. A. Davis Twenty-five Hundred Dollars, at the Mechanics' Bank in Brooklyn, value received.

Andrew J. Benson.

ENDORSEMENTS.

In Blank.	In Full.	General.	Qualified.	Conditional.	Restrictive.
L. A. Davis.	*Pay Chas. Evans or order. L. A. Davis.*	*Pay Chas. Evans. L. A. Davis.*	*Pay Chas. Evans or order, without recourse. L. A. Davis.*	*Pay Chas. Evans or order, unless payment forbidden before maturity. L. A. Davis.*	*Pay Chas. Evans only. L. A. Davis.*

The Endorser's Responsibility.

It has been generally admitted that the three first endorsements given amount to the same thing; that is, either the blank endorsement, the full endorsement or the general endorsement entitles the holder of the note to the money, and to look to Davis for payment if Benson defaults. It has even been held that in a general endorsement the holder had the right to fill in the words "or order" after Chas. Evans' name, if he saw fit. The qualified endorsement releases the endorser from any liability in case Benson defaults, the words "without recourse" meaning that the holder is without recourse against the endorser. The conditional and restrictive endorsement explain themselves by their wording, and, it is needless to say, are only used in special cases. Each endorser is severally and collectively liable for the whole amount of the note endorsed if it is dishonored, provided it is duly protested and notice given to each. The endorser looks to the man who endorsed it before him, and so back to the original maker of the note. As soon as a note is protested, it is vitally necessary that notice should be sent to each person interested at once.

Necessary Legal Points.

Bearing the preceding facts in mind, any form of note which conforms to these requirements will hold in law: It must promise to pay a specified sum of money. To be on the safe side, however, it is well to see to it that any note offered for negotiation—

Is dated correctly;

Specifies the amount of money to be paid;

Names the person to whom it is to be paid;

Includes the words "or order" after the name of the payee, if it is desired to make the note negotiable;

Appoints a place where the payment is to be made;

States that the note is made "for value received;"

And is signed by the maker or his duly authorized representative.

In some States phrases are required in the body of the note, such as "without defalcation or discount;" but, as a general thing, that fact is understood without the statement.

FORMS OF NOTES.

A Note Negotiable without Endorsement.

$250. *St. Louis, June 8, 1893.*

Thirty days after date I promise to pay J. H. Ames, or bearer, Two Hundred and Fifty Dollars, at the Third National Bank in St. Louis, for value received.

Charles Carns.

A Note Negotiable Only by Endorsement.

$200. CHICAGO, Nov. 26, 1893.

Three months after date I promise to pay John H. Woltering, or order, Two Hundred Dollars, value received.

J. T. NORTON.

A Note Not Negotiable.

$200. ST. LOUIS, Nov. 17, 1893.

Ninety days after date I promise to pay Charles C. Collins Two Hundred Dollars, value received.

SAMUEL ATKINSON.

A Note Bearing Interest.

$100. BATON ROUGE, LA., Nov. 26, 893.

Six months after date I promise to pay R. V. Jennings, or order, One Hundred Dollars, with interest, for value received.

JOHN Q. WATSON.

A Note Payable on Demand.

$150. PHILADELPHIA, Nov. 30, 1893.

On demand I promise to pay Lamonte Whittlesey, or bearer, One Hundred and Fifty Dollars, value received.

JOHN Q. CHAFFINGTON.

A Note Payable at Bank.

$100. CINCINNATI, Dec. 24, 1893.

Thirty days after date I promise to pay Thomas I. Rankin, or order, at the Second National Bank, One Hundred Dollars, value received.

FRANK T. MORRISON.

Principal and Surety.

$793. NEWARK, N. J., Dec. 28, 1893.

Sixty days after date I promise to pay Daniel O'C. Patterson, or order, Seven Hundred and Ninety-three Dollars, with interest, value received.

JOHN G. WATTERSON, *Principal.*
T. R. GRAHAM, *Security.*

A Married Woman's Note in New York.

$400. NEW YORK, Dec. 13, 1893.

Three months after date I promise to pay Johnson, Dunham & Co., or order, Four Hundred Dollars, with interest. And I hereby charge my individual property and estate with the payment of this note.

CLARA C. DICKERSON.

A Joint Note.

$3,000. DETROIT, MICH., Dec. 12, 1893.

One year after date we jointly promise to pay E. C. Langworthy, or order, Three Thousand Dollars, value received.

JOHN C. JENNINGS.
WALTER D. CURTIS.

A Joint and Several Note.

$3,000. DETROIT, MICH., Dec. 12, 1893.

One year after date we jointly and severally promise to pay E. C. Langworthy, or order, Three Thousand Dollars, value received.

JOHN C. JENNINGS.
WALTER D. CURTIS.

A Partnership Note.

No. —— BOSTON, MASS., November 26, 1893.

One month after date, without grace, we promise to pay to the order of ourselves Two Hundred and Fifty Dollars, at any bank in Boston.

JOHNSON & CO.,
209 Temple Place.

$150. Due Dec. 26, 1893.

A Note Payable by Instalments.

$3,000. PITTSBURG, Nov. 18, 1893.

For value received, I promise to pay R. P. Donaldson & Co., or order, Three Thousand Dollars, ir the manner following, to wit: One Thousand Dollars in one year, One Thousand Dollars in two years, and one Thousand Dollars in three years, with interest on all said sums, payable semi-annually, without defalcation or discount.

HUGO R. MUELLER.

A Judgment Note, with Collateral Note Combined.

[The portions enclosed in brackets are used in collateral notes only.]

CHICAGO, Dec. 20, 1893.

One year after date, for value received, I promise to pay to the order of Jeremiah B. Shelton Three Hundred and Sixty-Five Dollars, with interest at the rate of eight per cent per annum [after due, having deposited with the legal holder hereof, as collateral security, * * *. And I hereby give said legal holder, his, her or their assigns, authority to sell the same, or any part thereof, at the maturity of this note, or at any time thereafter, or before, in the event of said security depreciating in value, at public or private sale, without advertising the same, or demanding payment, or giving notice, and to apply so much of the proceeds thereof to the payment of this note as may be necessary to pay the same, with all interest due thereon, and also to the payment of all expenses attending the sale of the said collaterals, and in case the proceeds of the sale of the same shall not cover the principal, interest and expenses, I promise to pay the deficiency forthwith after such sale, with interest at ten per cent per annum. And it is hereby agreed and understood that if recourse is had to such collateral, any money realized on sale thereof in excess of the amount due on this note shall be applicable to the payment of any other note or claim which the said legal holder may have against me, and in case of any exchange of, or addition to, the collateral above named, the provisions of this note shall extend to such new or additional collateral.]

And to further secure the payment of said amount, I hereby authorize, irrevocably, any attorney of any court of record to appear for me in such court, in term time or vacation, at any time hereafter, and confess a judgment without process in favor of the holder of this note, for such amount as may appear to be unpaid thereon, together with costs and twenty-five dollars attorney's fee, and also to file a cognovit for the amount thereof with the agreement therein, that no writ of error or appeal shall be presented upon the judgment entered by virtue hereof, nor any bill in equity filed to interfere in any manner with the operation of said judgment, and to waive and release all errors which may intervene in any manner with the operation of said judgment; and to waive and release all error which may intervene in any such proceedings, and consent to immediate execution upon such judgment. Hereby ratifying and confirming all that said attorney may do by virtue hereof.

JOHN T. STRATFORD. [SEAL.]

A judgment note in Illinois requires the power of attorney to confess it. Many, and, in fact, most people deem a judgment note a sort of mortgage. It has no such effect, however, and creates no lien or claim different from any other note, and differs from any other note in this only, that the holder can take it and go into court, enter up a judgment and have execution against the maker at once. Thus, by the judgment so entered up, the holder gets a lien, and not by any lien created by the note before judgment.

A Short Form of Judgment Note.

$460. BROOKLYN, N. Y., Nov. 16, 1893.

On demand, for value received, I promise to pay, to the order of Alexander A. McHatton, Four Hundred and Sixty Dollars. And I hereby confess judgment for said sum with interest and costs, a release of all errors, and a waiver of all rights of appeal and to the benefit of all laws exempting property from levy and sale.

EZEKIAH PARTINGTON.

Sealed Note.

$5,000. CINCINNATI, O., Nov. 16, 1893.

For value received, I promise to pay Edgar & Co., or order, Five Thousand Dollars, in three years from the date hereof, with interest payable semi-annually, without defalcation or discount. And in case of default of my payment of the interest or principal aforesaid with punctuality, I hereby empower any attorney-at-law, to be appointed by said Edgar & Co., or their assigns, to appear in any court which said Edgar & Co., or their assigns, may select, and commence and prosecute a suit against me on said note, to confess judgment for all and every part of the interest or principal on said note, in the payment of which I may be delinquent.

Witness my hand and seal, this 16th day of November, A. D. 1893.

JOHN WHITE. [SEAL.]

Attest: GEORGE OLDHAM.

Forms of Notes in Several States.

MISSOURI.

$60.00. St. Louis, Mo., July 24, 1893.

Three months after date, I promise to pay to the order of Edgar M. Voll Sixty Dollars, for value received, negotiable and payable without defalcation or discount.

Sigmund A. Abeles.

INDIANA.

$315. Indianapolis, Ind., July 28, 1893.

On demand, for value received, I promise to pay William Westermann & Co., or order, Three Hundred and Fifteen Dollars, without interest, payable without any relief whatever from value or appraisement.

Richard M. Sylvester.

PENNSYLVANIA AND NEW JERSEY.

$300. Philadelphia, Pa., July 26, 1893.

Ninety days after date, I promise to pay to the order of Lafayette Armstrong Three Hundred Dollars, at Third National Bank, value received, without defalcation.

George Miller.

A Swindling Note.

Carlyle, Ill., October 3, 1893.

One year after date, I promise to pay R. Tucker or bearer Ten Dollars, when I sell by order Four Hundred and Seventy-five Dollars ($475) worth of Patent Fanning Mills, for value received, at ten per cent per annum. Said Ten Dollars when due is payable at Carlyle, Illinois.

JOHN WILSON, Agent for R. Tucker.

Witness: John Roe.

Although the above venerable scheme of the confidence man has been exposed time after time, it still continues to add yearly to its list of victims. A paper is drawn up wherein a farmer agrees to pay ten or twenty dollars when he has sold goods to a given amount. By tearing off the right-hand end of this paper, what is apparently an agreement for a small amount becomes a promissory note for a considerable sum. This note is sold at a bank, thereby becoming the property of a third and innocent party, and the signer of the agreement is called upon to pay the note.

This shows how important it is that a man should read and carefully examine every paper presented to him for his signature.

DUE BILLS.

A Due Bill differs from a note in the fact that it is a simple acknowledgment of a debt. It may be payable in money or merchandise. It is the simplest form of negotiable paper.

$20.00. PHILADELPHIA, May 8, 1893.

Due John Jackson, or order, for value received, Twenty Dollars.

HENRY FOLSOM.

In acknowledgment of debt, a form of due bill called an I O U is sometimes given.

I O U Three Hundred and Fifty Dollars.

WM. JOHNSON.

Due Bill Payable in Merchandise.

$50.00. ST. LOUIS, May 14, 1893.

Due Enos Baldwin, Fifty Dollars, payable in goods from our store on demand.

SONTAG & WEBER.

Due Bill Payable in Money and Merchandise.

$50.00. ST. LOUIS, May 14, 1893.

Due Howard Read, Fifty Dollars, payable, Twenty-five Dollars cash, Twenty-five Dollars in goods from our store, on demand.

SONTAG & WEBER.

ORDERS.

An Order for Money.

WACO, TEXAS, April 1, 1893.

MR. B. J. RING:

Please pay W. H. Cavanagh Ten Dollars on my account.

M. F. CRENSHAW.

An Order for Merchandise.

DALLAS, TEXAS, May 15, 1893.

MR. N. W. BECHTEL:

Please pay L. W. Motsuff Thirty Dollars in Merchandise and charge the same to my account.

L. E. KITTRELL.

RECEIPTS.

For Money on Account.

$15.00. KIRKWOOD, MO., Jan. 1, 1893.

Received of J. M. Hardy Fifteen Dollars on account.

P. D. RICH.

In Full of All Demands.

$150. DES MOINES, Iowa, Sept. 2, 1893.

Received of J. C. O'Neal One Hundred and Fifty Dollars, in full of all demands to date.

ALFRED W. GREGORY.

For Rent.

$80. ST. LOUIS, MO., Nov. 1, 1893.

Received of W. F. George Eighty Dollars, in full for one month's rent of residence at 2807 Olive St.

JOHN G. STEWART.

For Money Advanced on a Contract.

$500. DENVER, COL., May 15, 1893.

Received of L. W. Logan Five Hundred Dollars, in advance, on a contract to build for him a dwelling-house at No. 315 Cheyenne Ave., Denver.

JOHN T. SHERFEY.

POINTS OF BUSINESS LAW.

CHECKS made payable to "Cash" or order, or to some character, or number, or order, are held to be payable to bearer.

A past-due note entrusted for collection to an agent was converted by him to his own use, and was afterwards sold under an execution against him. The court decided that the purchaser had not acquired any interest in the note and could not maintain an action against the maker.

In case of the death of the principal maker of a note the holder is not required to notify a surety that the note is not paid, before the settlement of the maker's estate.

Notes obtained by fraud, or made by an intoxicated person, are not collectible. A note made by a minor is void.

If no time of payment is specified in a note it is payable on demand.

An endorser can avoid liability by writing "without recourse" beneath his signature.

A check endorsed by the payee is evidence of payment in the drawer's hands.

A signature written with a lead pencil is valid.

No contract is good unless there be legal consideration.

An outlawed debt is revived should the debtor make a partial payment.

In case of a note made payable one day after date, with interest from date at the rate of 12 per cent per annum, interest to be paid annually, it was held that the note would draw the same rate of interest after maturity until paid.

The revised statutes of Indiana provide that notes payable "to order" or "to bearer," in that State, are negotiable as inland bills of exchange, and the payees and endorsers thereof may recover as in case of such bills.

Payment is the performance of an agreement or the fulfilment of a promise, the discharge in money of a sum due. Pleaded as a defence, payment of money or of an equivalent accepted in its place, to the plaintiff or his authorized representative, must be proved by defendant. To extinguish the debt, payment must be made by a person having the right to do so, to a person entitled to receive it, at the appointed place and time, and in something proper to receive, both as to kind and quality. Proof that anything has been done or accepted as payment is proof of payment. A receipt is *prima facie* evidence of payment; so also is the possession by the debtor of a security after the day of payment

ACCOMMODATION PAPER.

Drafts as well as notes are employed as accommodation paper. For example, Smith, being willing to lend Jones money which the later needs, and having none immediately available, draws a draft on Robinson, who is his debtor, and makes it payable to Jones, who gives no value for it. Such a draft in Jones' hand is accommodation paper and cannot be used as an implied contract against Smith; if discounted at a bank, or transferred for money to an individual, it becomes business paper as far as the holder is concerned, and its payment may be enforced.

Forged Paper.

The endorsee generally obtains a perfect title when paper is transferred before maturity; but if the first endorsement is forged, no title rests in the holder. If the signature of the maker of a note is forged, the holder has no recourse against him. Negotiable paper is void when the consideration is either contrary to the general principles of common law or is prohibited by statute.

Want of Consideration.

Want of consideration—a common defence interposed to the payment of negotiable paper—is a good defence between the original parties to the paper; but after it has been transferred before maturity to an innocent holder for value, it is not a defence.

Stolen or Lost Paper.

Negotiable paper, payable to bearer or endorsed in blank, which has been stolen or lost, cannot be collected by the thief or finder, but a holder who receives it in good faith before maturity, for value, can hold it against the owner's claims at the time it was lost.

Payment Before Maturity.

Sometimes the holder of paper has the right to demand payment before maturity; for instance, when a draft has been protested for non-acceptance and the proper notices served, the holder may at once proceed against the drawer and endorsers.

State Laws as to Payment.

If a note or draft is to be paid in the State where it is made, the contract will be governed by the laws of that State. When negotiable paper is payable in a State other than that in which it is made, the laws of that State will govern it. Marriage contracts, if valid where they are made, are valid everywhere. Contracts relating to personal property are governed by the laws of the place where made, except those relating to real estate, which are governed by the laws of the place where the land is situated.

Collateral Security.

If negotiable paper, pledged to a bank as security for the payment of a loan or debt, falls due, and the bank fails to demand payment and have it protested when dishonored, the bank is liable to the owner for the full amount of the paper.

The Laws of the United States and Canada Relating to Interest.

COMPILED FROM THE LATEST STATE AND TERRITORIAL STATUTES.

Laws of Each State and Territory Regarding Rates of Interest and Penalties for Usury, with the Law or Custom as to Day of Grace on Notes and Drafts.

STATES AND TERRITORIES.	LEGAL RATE OF INTEREST.	RATE ALLOWED BY CONTRACT.	PENALTIES FOR USURY.	GRACE OR NO GRACE.
	Per cent.	*Per cent.*		
Alabama	8	8	Forfeiture of entire interest.	Grace.
Arizona	7	Any rate.	No penalty.	Grace.
Arkansas	6	10	Forfeiture of principal and interest.	Grace.
California	7	Any rate.	No penalty.	No grace.
Colorado	8	Any rate.	No penalty.	* No grace.
Connecticut	6	6	No penalty.	No grace.
Dakota, North and South	7	12	Forfeiture of contract.	Grace.
Delaware	6	6	Forfeiture of contract.	No grace.
District of Columbia	6	10	Forfeiture of entire interest.	No grace.
Florida	8	Any rate.	No penalty.	No grace.
Georgia	7	8	Forfeiture of entire interest.	No grace.
Idaho (usurer liable to arrest for misdemeanor)	10	18	Forfeiture of 3 times excess of int'st.	No grace.
Illinois	5	7	Forfeiture of entire interest.	No grace
Indiana	6	8	Forfeiture of excess of interest.	Grace.
Iowa	6	8	Forfeiture of interest and costs, and 10 per cent. to school fund.	No grace.
Kansas	7	12	Forfeiture of excess of interest.	Grace.
Kentucky	6	6	Forfeiture of entire interest.	Grace.
Louisiana	5	8	Forfeiture of entire interest.	Grace.
Maine	6	Any rate.	No penalty.	Grace.
Maryland	6	6	Forfeiture of excess of interest.	Grace.
Massachusetts	6	Any rate.	No penalty.	Grace.
Michigan	7	10	Forfeiture of excess of interest.	Grace.
Minnesota	7	10	Forfeiture of contract.	Grace.
Mississippi	6	10	Forfeiture of entire interest.	Grace.
Missouri	6	10	Forfeiture of entire interest.	Grace.
Montana	10	Any rate.	No penalty.	Grace.
Nebraska	7	10	Forfeiture of interest and cost.	Grace.
Nevada	10	Any rate.	No penalty.	No grace.
New Hampshire	6	6	Forfeiture of thrice the excess.	Grace.
New Jersey	6	6	Forfeiture of entire interest and costs.	Grace.
New Mexico	6	12	No penalty.	No grace.
New York †	6	6	Forfeiture of principal and interest.	No grace.
North Carolina	6	8	Forfeiture of twice the interest.	Grace.
Ohio	6	8	Forfeiture of excess.	No grace.
Oregon	8	10	Forfeiture of principal and interest.	No grace.
Pennsylvania	6	6	Forfeiture of excess of interest.	Grace.
Rhode Island	6	Any rate.	No penalty.	Grace.
South Carolina	7	10	Forfeiture of interest.	Grace.
Tennessee	6	6	Forfeiture of excess of interest.	No grace.
Texas	8	12	Forfeiture of all interest.	Grace.
Utah	8	Any rate.	No penalty.	No grace.
Vermont	6	6	Forfeiture of excess of interest.	No grace.
Virginia	6	6	Forfeiture of excess.	No grace.
Washington	10	Any rate.	No penalty.	Grace.
West Virginia	6	6	Forfeiture of excess of interest.	No grace.
Wisconsin	7	10	Forfeiture of entire interest.	Grace.
Wyoming	12	Any rate.	No penalty.	Grace.
Canada	6	Any rate.		Grace.
Oklahoma	7	12	Forfeiture of entire interest.	Grace.

* Except on promissory notes and bills of exchange. † $5,000 call loans on collateral, any rate.

No agreement to pay a higher than the legal rate can be enforced unless it is expressly authorized by statute, the established presumption of the law, in the absence of such legislation, being that such a rate is usurious.

The Laws of the United States and Canada Relating to Limitation of Actions.

NOTE.—A statute of limitation begins to run from the time at which a creditor is authorized first to commence suit. Upon mutual, concurrent and open accounts, the statute, in general, begins to run with the date of the last item. A debt, otherwise barred, may be revived by a new promise made within the period of limitation. The new promise may be either express or implied from a part payment, or any unqualified acknowledgment from which a promise may be inferred.

STATE.	ASSAULT AND SLANDER.	OPEN ACCOUNTS.	NOTES AND CONTRACTS IN WRITING.	SEALED INSTRUMENTS.	JUDGMENTS OF A COURT OF RECORD.	
	Years.	*Years.*	*Years.*	*Years.*	*Years.*	
*Alabama	1	3	6	10	15	
Arkansas	1	3	5	5	20	Judgments of Justice's court, 5 years. Judgment liens expire in 3 years.
*Arizona	1	2	4	4	5	
California	1	2	4	4	5	An action upon a judgment rendered or contract made out of the State is barred in 2 years.
Colorado	1	6	6	6	6	When the cause of action accrues without the State, the periods of limitation are 2 years for notes and accounts; 3 years for sealed instruments and judgments.
Connecticut	3	6	6	17	17	Promissory notes not negotiable are barred in 7 years. Demand notes, when indorsed, must be protested within 4 months from date, without grace, to hold the indorser.
Dakota, North & South	2	6	6	20	20	
Delaware	1	3	6	20	20	
District of Columbia	1	3	3	12	12	
Florida	2	4	5	20	20	
Georgia	1¶	4	6	20	..	Judgments become dormant in 7 years from date of last return on execution issued, but may be revived. Foreign judgments barred in 5 years.
*Idaho	2	4	5	5	6	
*Illinois	1	5	10	10	20	
*Indiana	2	5	20	20	20	
*Iowa	2	5	10	10	..	
*Kansas	1	3	5	5	15	Judgments become dormant in 5 years, unless revived.
*Kentucky	1	5	5	15		"Store account" for goods sold and delivered, 2 years from 1st of January next succeeding date of last item. Merchandise accounts between merchants, 7 years.
*Louisiana	1	3	5	10	10	
Maine	2	6	6	20	20	Witnessed notes, 20 years.
Maryland	1	3	3	12	12	
*Massachusetts	2	6	6	20	20	Witnessed notes, 20 years.
Michigan	2	6	6	10	10	
*Minnesota	2	6	6	10	10	
Mississippi	1	3	6	7	7	Years from date of last execution. Foreign judgments barred in 3 years. Accounts stated, 3 years.
Missouri	2	5	10	10	10§§	
*Montana	2	5	10	10	10	
*Nebraska	1	4	5	5	5	
*Nevada	2	2	6	4	5	Liabilities incurred out of State, 3 years.
New Hampshire	2	6	6	[illegible]	20	
New Jersey	2§	6	6	16	20	
New Mexico	1	4	6	6	15	
New York	2	6	6	20	20	
North Carolina	1†	3	3	10	10	
*Ohio	1	6	15	15	15	For foreign judgments. Domestic judgments become dormant in 5 years, but may be revived.
*Oregon	2	6	6	10	10	
*Pennsylvania	1	6	6	20	20	Mercantile accounts are not affected by the statute as long as they remain open.
Rhode Island	1	6	6	20	20	
South Carolina	2	6	6	20	20	
*Tennessee	1	6	6	10	10	
*Texas	1	2	4	4‡	10	
*Utah	1	2	4	4	5	Action "for specific recovery of personal property," or "for relief on the ground of fraud," 3 years.
*Vermont	2	6	6	8	20	Witnessed notes, 14 years.
Virginia	1	5‖	5	20	8	Judgments of other States, period of limitation under the law of that State, not exceeding 10 years. "Store account," 2 years.
*Washington	2	5	6	6	6	
West Virginia	1	5‖‖	10	10	10	Judgments of another State, same as in Virginia. "Store account," 3 years.
*Wisconsin	2	6	6	20	20	Judgments of other States and sealed instruments, where the liability accrued out of the State, 10 years.
*Wyoming	1	4	5	5	..	Judgments become dormant in 5 years. Foreign debts and judgments, 1 year.
CANADA.						
Province of Ontario	2	6	6	10	10	
Province of Quebec	1, 2	5	5	30	30	

* In the States thus marked, it is provided by statute that a cause of action shall be barred which first accrued in another State and is barred by the statute of limitations of that State. This is contrary to the general rule, by which a debtor must have resided in the State during the statute period before he can take advantage of it.

† Slander, 6 months.

‡ Seals abolished.

§ Assault, 4 years.

§§ In certain courts, 20 years.

¶ Slander, 1 year.

‖ Store accounts, 2 years.

‖‖ Store accounts, 3 years.

BANKS AND BANKING.

A BANK is, in the simplest sense of the term, a place in which money can be stowed away for safe-keeping. But since the days when goldsmiths and others took care of the funds of such as trusted in their honor and the strength of the strong-boxes which were part of their stock in trade, the idea has been by degrees developed, until now a banking institution, with its means of supplying exchange and discount, its powers of circulation, its care of deposits and its attention to correct accounts, is the embodiment of one of the most interesting as well as the most useful of modern sciences. One of the prime needs of every commercial community is an ample supply of banking capital and facilities for discount.

The profit of the manufacturer, of the merchant and of the retail trader represents in the long run only the balance left after paying the current rate of interest, and if, in consequence of lack of banking capital, interest is higher in one city than in competing cities, all business will suffer, goods will not be bought, grain will not be handled, cotton will be out of reach, improvements will be postponed, and the city will be condemned to enforced idleness in many departments of endeavor where the busy wheels of industry would be started in motion if money could be borrowed on easy terms.

How the Business is Carried On.

The business of banking is divided into several departments or branches, DEPOSITS, CIRCULATION, EXCHANGE, COLLECTION, DISCOUNTS and LOANS being the most important. On account of these different branches banks are frequently called Banks of Discount, Banks of Deposit, Savings Banks, etc.

Banks of Deposit.

A Bank of Deposit is one which receives money from depositors for safe-keeping, paying it back on their checks to others or to themselves. The most important function of a bank is the receiving of deposits, the person thus entrusting his money to the care of the bank being called a depositor. He not only has the advantage of the safe-keeping of his cash, but the further convenience of making his payments from it whenever he chooses, by means of checks. As he will receive payments from others in a similar manner, and deposit them as money, it will at once be seen that an immense volume of business can be transacted, and vast sums of

money paid out, without the handling of any cash.

In Europe it is quite different. The holder of a check presents it to the bank and receives the money. The system of payment by checks, which are deposited as money, is more universally practiced in the United States and Canada than in any other part of the world.

The safe-keeping of his money, and the convenience of his check account, together with other favors he receives in the way of discounts, loans, exchange, etc., are generally regarded as sufficient compensation for the use of a depositor's funds.

A person desiring to make a single deposit, to be withdrawn in the same amount, receives from the bank a CERTIFICATE OF DEPOSIT. This is issued by the bank itself, is payable at any stated time, or on demand, and may bear interest.

Banks of Circulation.

The issue by a bank of its promises to pay, in the form of bank notes or bills, is called its circulation. These notes or bills, being guaranteed by the Government, answer as a substitute for money. The Government holds, as security, bonds belonging to the bank, to a still larger amount, and also retains a five per cent fund for immediate redemption. Only the National Banks issue a circulation, as a tax of ten per cent would be levied upon any other kind of circulating notes.

Circulating notes called "Greenbacks" are issued by the National Treasury, which thus performs the office of a Bank of Circulation. Various opinions exist as to the propriety of the Government exercising this function. Some hold that it is not right or proper for the Government to be engaged in the banking business, while others contend that the Government alone should have the power to issue paper currency. Others, again, believe the Government should hold a dollar of coin in the Treasury for every paper dollar in circulation.

Banks of Exchange.

A Bank of Exchange is one which receives money on deposit, and, instead of paying it back to the depositor, makes payments by drafts on other banks. It keeps money on deposit at the principal trade centres, thus affording the advantage of sending money to different points at a trifling expense and without risk in transportation.

It charges the person who desires to remit a small amount for its services, and sells him its draft on the place to which the remittance is to be sent. The system is known as Inland and Foreign Exchange, Inland Exchange consisting of a draft drawn and payable in the State or country, and Foreign Exchange being a draft drawn in one country and payable in another. Foreign Exchange involves also the reduction of the money of one country into that of another.

What is Bank Discount?

Bank Discount is the payment of a note or other paper before it is due, deducting the interest that would have accrued at maturity. A note or draft is *discounted* when the interest for the given time and at the given rate is taken from the face, and the balance paid to the holder. The sum deducted is the *discount;* the remainder is the *proceeds*.

Bank Officers and Employes.

The stockholders of an incorporated bank elect a Board of Directors, who manage its affairs. These elect a President, one or more Vice-Presidents, and a Cashier. The Cashier is the executive officer of the bank and controls its interior management. He is assisted by a number of employes. The principal ones are the Paying Teller and the Receiving Teller, who are at the head of the debit and credit departments; the Note Teller; the Discount Clerks; the Collection Clerks; the Book-keepers, each in charge of certain ledgers; Assistant Tellers; Assistant Book-keepers; Check-Clerks and Messengers, or "Runners."

HOW TO DO BUSINESS WITH A BANK.

IN doing business with a bank, the first step is to secure a proper introduction to the cashier. If one's references are all right, the depositor's signature is put on record in the "signature-book," giving the name as he intends to sign it on his checks. This is done to furnish the paying teller with an accurate means of judging the genuineness of the signatures of checks—a very necessary precaution, as the bank is responsible for the genuineness of the signatures of all checks. When a partnership account is opened, each member of the firm who is allowed to sign checks writes the firm's name and his own in the signature-book.

Deposits.

When money is deposited in a bank, some voucher should be taken. This is done usually by the teller writing the amount of the deposit in the small bank-book of the depositor, and sometimes a receipt, called a teller's check, is given. When a deposit is made, the bank usually issues a small "hand-book," to be carried in the pocket, in which an account is kept by the teller of the bank of all the transactions which follow. After the opening deposit, when it is intended to pay in more money, the depositor fills out a blank, showing the amount paid in and indicating whether it is in checks or current funds. This ticket, with the book and the money, is handed to the teller, who enters the date and amount. When a note is left for collection, it is usually entered by the collection clerk in the back part of the book, giving date, maker's name, maturity, and amount. When collected, the amount, less collection charges, is placed in the book as a regular deposit. Few merchants keep a separate account with a bank in their general books, the "bank-book" and the stubs of the check-book being sufficient, and in themselves vouchers of the transaction.

How to Keep the Stub of Check-Book.

In drawing a check, insert all the particulars in the stub before doing so in the body of the check; also the purpose for which the check is drawn.

The left-hand page of the stub is intended for the purpose of entering your deposits; the right-hand page for the description of the checks. When both sides are footed up, the excess of the left-hand total over the right shows the balance remaining to your credit in bank.

By following the form here given, it will be found much preferable to subtracting each check, as many do, which makes the tracing of an error very difficult:

1893.					
Nov. 6, Deposit.			No. 1.		
Coin.....$ 100.00			Nov. 7, 1893.		
Bills..... 200.00			Amount.....	$200	00
Check.			Order of		
Williams..... 60.00			T. A. Lamont.		
Johnson..... 37.50					
White.....1,666.66					
	$2,064	16			
			No. 2.		
			Nov. 8, 1893.		
Nov. 8, Deposit.			Amount.....	125	00
Bills.	1,000	00	Order of		
			L. H. Peterson.		
Nov. 9, Deposit.					
Check, B. Dixon.	151	98			
			No. 3.		
			Nov. 11, 1893.		
$3,216.14			Amount.....	658	30
983.30			Order of		
2,232.84			J. M. Whitney.		
	$3,216	14		$983	30

The totals are carried forward to the next pages in this manner:

Forward, *Etc.*	$3,216	14	Forward, *Etc.*	$983	30

Balancing a Bank-Book.

Checks paid are not entered up in the bank-book as they are presented for payment, but are filed away, and at the end of a month, or, indeed, whenever the depositor desires to have his account balanced, the book is presented and the balance figured up by the teller, who enters it usually in red ink under the paid checks on the right-hand side. The book should then be ruled up, and the balance in bank carried over to the left-hand side, similar to the first entry. When the depositor calls for his book, all the cancelled checks are passed out to him along with the account.

How to Draw and Endorse a Check.

A check is a written order on a bank directing that a certain amount of money be paid to a person whose name is given, or to the order of that person, or to the bearer. A check is the simplest form of negotiable paper, although there are checks which are not negotiable. There is no set form for the wording of a check. Any dated demand upon

a bank in which the person signing has money, properly signed, is a check, and will draw the money. Sometimes the words "or order" are used; sometimes, "or bearer." Occasionally checks are made payable to "the bearer" without giving any name. If the words "or order" and "or bearer" are both omitted, then the check is not negotiable, and can be paid only to the person named. In theory a check is a sight draft, which does not need acceptance, as it is paid on presentation. All banks keep printed forms of checks, which they issue to depositors. When a check is made payable to the payee "or order," it must be endorsed by the payee before payment. Generally, all checks, whether "to order" or "to bearer," should be endorsed, which is by writing the name of the payee across the back.

Certified Checks.

If all men were perfectly honest, certified checks would never have been thought of. But men will occasionally draw against deposits which exist only in their imaginations, and to meet this growing evil, certification of checks has been introduced. No uncertified check from a stranger should be received by any business man. The certifying means that the person drawing the paper has funds to his credit to the amount of the check, and the bank guarantees its payment. To get a check certified, it is presented either to the paying teller or the cashier of the bank on which it is drawn. The bank officer writes across the face, "Certified," with the date, and signs. Another form used very frequently are the words, "Good when properly endorsed," with the signature. This makes the bank liable for the check, even if it is a forgery or a fraudulent one. The certification of a check is the same as the acceptance of a draft.

Banking Frauds.

FORGED CHECKS.—Despite the precautions taken by banks in keeping a signature-book, it frequently happens that astute rogues deceive them with forgeries. This is the most dangerous crime in the business world, as it strikes at the root of confidence. Some forgers are so expert that they are able to imitate a signature so closely that even the one whose name is forged can only swear that he did not make out the check, and will not be able to pick out the forged signature by itself from the genuine. All of the responsibility of detecting forgeries is thrown upon the receiving teller of the bank. Every check is paid by the bank at its own risk, and it has no recourse against the person whose name is forged. A forgery cannot be rectified by the person whose name was used, as this rectification would be contrary to public policy, and would tend to shield a crime which, unpunished, would break the whole commercial fabric.

RAISED CHECKS.

A device of sharpers which is frequently attended with great success is so to alter the wording and the figures of a check that it will call for more money than the drawer intended to pay. This is called "raising a check," and is a felony. Check-raising is only possible when the check is loosely written, with a number of blank places where words may be inserted. Care should be taken always to fill in the empty spaces with lines of ink. If a raised check is paid by a bank it can only charge the depositor with the amount for which he drew. A very common device, and a good one, used by many merchants, is to stamp the amount of money written on the check with an instrument having a number of sharp points, which so roughens the paper that it is impossible to write anything more on it, although it leaves the original writing legible.

ALTERED CHECKS.

Altered checks differ from raised checks from the fact that in an altered check all of the original writing except the signature, date and number is taken out with chemicals, which leaves the check blank. It is then rewritten for any amount the swindler desires to put in.

DRAFTS AND BILLS OF EXCHANGE.

A draft may be described as an order or request, written by one person to another, asking the latter to pay a specified sum of money to a third party, or to his order, or to the bearer. Bills of exchange are drafts under another name. An inland bill is a draft drawn and payable in the same State or country, and a foreign bill of exchange is drawn in one country and payable in another. Remittances can be made much more safely and expeditiously by sending bills of exchange than by sending money. If lost, the draft may be duplicated. To provide against this contingency, in sending drafts over sea, it is customary to draw two or three for the same remittance, and when one of these is paid, the others are void; but the great and increasing accuracy of the world's postal systems has largely removed the necessity for sending more than one bill of exchange. So much for definitions. We will now examine drafts and their forms.

How Drafts are Drawn.

In a draft, as in a note, any form which includes the necessary requirements will be held good in law, no matter how these may be arranged. Still, custom has, in a measure, crystallized on certain lines.

$600. *Chicago, April 1st, 1893.*

At Ten Days sight pay to the order of Edwin Russell Six Hundred Dollars, value received, with current rate of exchange.

To Simon Hackaday, St. Louis, Mo. } *Donohue & Co.*

The theory upon which a draft is drawn is that the drawer has or will have funds in the hands of drawee at the maturity of the draft, or that the drawee is indebted to him. Sometimes drafts are drawn by agreement when there is no indebtedness. It must be borne in mind that there is much difference in the liability between a note and a draft. The maker of a note must pay it; the drawer of a draft is only liable after the drawee has refused to pay. The drawee only becomes liable when he has accepted the draft. When the draft is presented, if it is a sight draft, no acceptance is necessary, except where the State law allows days of grace. The draft is simply to be paid at once. But when it is to be paid at a certain time after sight, the drawee must formally accept it, which is done by writing across the face of the paper the word "Accepted," with the date and the signature of the person accepting. This acceptance is a legal promise to pay.

When the draft is presented, the drawee can demand a reasonable time to make up his mind whether to accept or not, whereupon it may be left with him one day. If he refuses to return it at the end of that time, he can be held as accepting. The place for presentment is the business office or residence of the payee.

Non-Acceptance.

When the drawee refuses to accept the draft, it is said to be "dishonored." It must be at once protested, and notice sent to all parties who are consequently liable. The protest must be made on the same day that the draft is dishonored, and the notice sent at least by the day following. The protest should be made by a notary public; but, if one is not accessible, it can be made by any respectable citizen.

A Protest.

A protest is a declaration made by a notary public against the loss which may follow the non-acceptance of a draft, its non-payment, or the non-payment of a note. To illustrate the machinery of the protest we will return for a moment to the draft, the form for which has been given above. Mr. Hockaday refuses to accept the draft drawn on him by Donohue & Co. It is placed in the hands of a notary public, who again presents the draft to Hockaday and demands its acceptance. He refuses, whereupon a form is filled out testifying to the facts in the case, especially Hockaday's refusal to accept, all of which is attested by the notary. No person can be held responsible for payment unless notice of protest is sent to him as early as the day following the protest. These notices should be sent to the maker and to each endorser of the draft.

NOTICE OF PROTEST.

St. Louis, April 7th, 1893.

Please to take Notice:

That a Draft drawn by yourself on Simon Hockaday, of St. Louis, Mo., for the sum of One Thousand Dollars, dated April 1st, 1893. was this day Protested *for non-acceptance, and that the holder looks to you for the payment thereof, acceptance having been duly demanded by me and refused.*

Commissioned June 1st, 1893.
Commission expires June 1st, 1894.

A. A. Oldfield,
Notary Public.

To Donohue & Co., Chicago, Ill.

An acceptance "supra-protest" is the name given to the acceptance of the draft by some person other than the drawee, "for the honor of the drawee." The draft is then held till maturity, and presented to the drawee as though he had accepted it. If he refuses to pay, it is protested, and the person making the "acceptance supra-protest" is liable for the amount.

Foreign Bills of Exchange.

The principles which we have been examining above apply with equal force to foreign bills of exchange. These are now commonly drawn in sets of two, so that each may be sent by a different ship, and they are always to be payable in the money current in the country where the payment is to be made.

Exchange for £200.

St. Louis, August 8th, 1893.

At sight of this First of Exchange (second unpaid) pay to the order of Philip Francis Two Hundred Pounds Sterling, value received, and charge same to account of

Wilmot Baring.

To Cunningham, Shaw & Co.,
Liverpool, England.

Exchange for £200.

St. Louis, August 8th, 1893,

At sight of this Second of Exchange (first unpaid) pay to the order of Philip Francis Two Hundred Pounds Sterling, value received, and charge same to account of

Wilmot Baring.

To Cunningham, Shaw & Co.,
Liverpool, England.

A foreign bill is protested in the same manner as an inland bill. The law does not explicitly require this protest in every case, but it has been found, even where the State statute has simply required "notice of non-acceptance" to be furnished the parties liable, to be the safest way to fix liability

Letters of Credit.

The letter of credit is one of the most useful of banking instruments, proving of great convenience to travellers in foreign lands, whom it enables to draw money from banks and bankers, thus relieving them from the risks attendant upon carrying large amounts of money about the person, and the annoyance of making frequent exchanges. The following is the form generally employed:

FOREIGN LETTER OF CREDIT.

THIRD NATIONAL BANK.

Foreign Letter of Credit,
No. 2308.

Kansas City, March 23, 1893.

Gentlemen:

We request that you will have the goodness to furnish Mr. Hannibal Atkins, of this city, whose signature is at foot, with any funds he may require, to the extent of Twenty Thousand Francs in Gold, against his Duplicate Receipts (one of which you will forward to us), for any payment made under this credit.

Whatever sum Mr. Atkins may take up, you will please endorse on the back of this letter, which is to continue in force until January 1, 1894, and charge to the account of

Your obedient servant,

THE THIRD NATIONAL BANK,

Richard Rankin,
President.

The Signature of
Hannibal Atkins.

To Messieurs:
The Bankers mentioned on the third page of this letter of credit.

Inland letters of credit are also used, their general characteristics being the same as the foreign, though they differ somewhat in their wording. Generally a letter of introduction is delivered to the party to whom the credit is issued, introducing him to the correspondent of the bank of issue, and stating the nature of the transaction, the amount of credit granted and the time it has to run. Letters of advice, conveying the same intelligence, together with the signature of the party bearing the letter of credit, are sent to the bank's correspondents.

Bill of Lading as Security.

Shippers of merchandise, purchasing cargoes on speculation to be forwarded to an agent for sale, to obtain the money to pay for it, draw a draft upon the consignee, made payable to the bank from which the money is obtained, by giving as security for its payment a bill of lading made out by the captain of the craft or the railroad company owning the road upon which the goods are shipped, either in the name of the shipper, and assigned by him to the bank, or drawn originally in the name of the bank, both forms being common. As a general rule, the bill of lading is attached to the draft and is held by the bank, to which the title at once passes.

A BILL OF LADING.

No. 315. *Chicago, July 30, 1893.*

SHIPPED by Asa Lasalle, as Agent, in apparent good order, on board the Propeller May Prescott, of Ogdensburg, New York, whereof James Perkins, of Cleveland, Ohio, is Master, the following described property, to be transported to the place of destination without unnecessary delay, and to be delivered as addressed on the margin in like good order, in the customary manner, free of lighterage, upon prompt payment of freight and charges as prescribed in this bill.

The Freight, Charges and Demurrage payable to Enos Hanscomb, Cashier *First National Bank* of Erie, Pa., or order, at place of destination, who is the only party authorized to collect the same, and whose receipt shall be in full of all demands on this cargo or Bill of Lading.

In Witness Whereof, the said Master of said boat hath affirmed to three Bills of Lading, one marked "original" and two "duplicate," of this tenor and date, one of which being accomplished the others to stand void.

Order of Franklin Bank. 10,000 Bushels No. 1 Winter Wheat.
Freight, 3 cents per bushel.

Notify Peter Albright & Co., Ogdensburg.

AMOS BOWEN.
J. G. LEITCH.

The grain thus hypothecated to the bank is subject to its control and direction, and its proceeds, when sold, must be applied to the draft's payment.

Asa Lasalle's transaction in purchasing the wheat and shipping it on the propeller May Prescott, of which James Perkins is captain, is partially described in the foregoing bill of lading. The grain is consigned to Peter Albright & Co., Ogdensburg, agents, on account of the Franklin Bank, which also requires Asa Lasalle to insure the consignment for its protection. The following is the form of draft employed in a transaction of this kind:

THE DRAFT.

$12,000. *Chicago, Ill., July 12, 1893.*

Pay to the order of Franklin Bank Twelve Thousand Dollars, value received, and charge the same to account of (10,000 bus. winter wheat, Prop. May Prescott)

Asa Lasalle.

To Peter Albright & Co.,
Ogdensburg.

No. 853.

The Clearing-House System.

A Clearing-house is an association of the banks and bankers of a city for the exchange of their checks and the adjustment of accounts between themselves. A business man, receiving a check in the course of trade, seldom thinks of sending it to the bank on which it is drawn, but simply deposits it in the bank with which he keeps his account, only taking the precaution to have it "certified" if he doubts its goodness. Thus, at the close of a day, each bank will hold a number of checks drawn on other banks. These are assorted, and placed in envelopes, marked with the names of banks on which they are drawn and with the total amount, and taken by a clerk and messenger to the Clearing-house. There the balances against or in favor of each bank are ascertained, and are paid in by a certain hour each day, and the accounts settled. By the Clearing-house system the exchange of millions of dollars is daily effected in large cities by the transfer of a few thousands.

OUR NATIONAL BANKING SYSTEM.

THE NATIONAL BANKING SYSTEM was created by Congress in the belief that it was the best permanent method of securing paper money absolutely safe from loss to the holder and readily convertible into coin. Under the laws of the United States any number of persons not less than five may form an association and obtain a charter for the purpose of carrying on the business of a national bank. The capital stock of a national banking association is divided into shares of $100 each, and in cities of 50,000 population, or over, no association can be organized with a less capital than $200,000; in cities of less than 50,000, $100,000 capital is required, but, with the approval of the Secretary of the Treasury, national banks may be organized in places of less than 6,000 inhabitants with a capital of $50,000.

National banks are authorized to discount and negotiate notes, drafts, etc.; to receive deposits; to buy and sell exchange, coin and bullion; to loan money on personal security, and to issue circulating notes. They are prohibited from making loans on real estate, or on security of their own shares of capital, except to secure debts previously contracted, and real estate purchased or mortgaged to secure a pre-existing debt cannot be held for a longer period than five years.

They are also prohibited from making loans to one person or association, excepting on business paper representing actually existing value as security, in excess of one-tenth of the capital of the bank.

The stockholders of a national bank are individually liable (equally and ratably, and not one for another) for an amount equal to the par value of the capital stock held by them.

The national banks in the reserve cities are required by law to hold a lawful money reserve of 25 per cent. of their deposits; all other national banks, 15 per cent. The excess above legal requirements is called "surplus reserve." This reserve includes the five per cent redemption fund with the U. S. Treasurer.

The law provides that a surplus fund shall be accumulated, by setting aside, before the usual semi-annual dividend is declared, one-tenth part of the net profits of the bank for the preceding half-year, until the surplus fund shall amount to 20 per cent of its capital stock.

The national banks pay to the United States a tax of 1 per cent annually upon the average amount of their notes in circulation, ½ per cent annually upon the average amount of their deposits, and ½ per cent annually upon the average amount of capital not invested in U. S. bonds. Banks other than national pay taxes to the United States on account of their circulation, deposits and capital at the same rates as are paid by the national banks.

National Bank Circulation.

Every national bank, before it is authorized to commence business, must transfer to the Treasurer of the United States registered bonds, bearing interest to an amount not less than one-fourth of the capital stock paid in, as security for its circulating notes. Banks having a capital of more than $150,000 shall be required to deposit bonds to the amount of one-third of their capital stock.

Upon a deposit of registered bonds, the association making the same will receive from the Comptroller of the Currency circulating notes of different denominations, in blank, equal in amount to 90 per cent of the current market value, not exceeding par, of the bonds so deposited.

The circulating notes of national banks are redeemed in lawful money by the banks which issue them, and by the Treasurer of the United States at Washington. Every national bank must, at all times, keep and have on deposit in the Treasury of the United States, in lawful money, a sum equal to 5 per cent of its circulation, to be held and used for the redemption of such circulation.

A bank going into voluntary liquidation must, within six months thereafter, deposit in the Treasury a sum equal to the amount of circulating notes outstanding. The law also requires that full provision shall be made for the redemption of the circulating notes of any insolvent bank before a dividend is made to its creditors. No association, therefore, can close up its business without first providing for the payment of all its circulating notes, and the amounts deposited for their redemption must remain in the Treasury until the last outstanding note shall have been presented. Thus the Government, and not the bank, receives all the benefit arising from lost or unredeemed circulating notes.

STOCKS AND BONDS

THE CAPITAL of a corporation is always divided into shares ranging from $10 to $1,000, but usually of $100 each. These shares are known as *stock*, and represent an interest in the property and profits of the company over and above liabilities and expenses. A *dividend* is the distribution of the profits, proportionate to number of shares held among the stockholders.

Stock certificates are written instruments, signed by the proper officers of the company, and certifying that the holder is the owner of a certain number of shares of the capital stock. These certificates are transferable, and may be bought and sold the same as other species of property. The sum for which each share or certificate was issued is the *par value*, and the amount for which it can be sold the *market* value.

Preferred Stock.

This kind of stock takes preference of the ordinary stock of a corporation, and the holders are entitled to a stated per cent annually out of the net earnings before a dividend can be declared on the common stock. Preferred stocks are generally the result of reorganization, although sometimes issued in payment of floating or unsecured debts.

How Stock is "Watered."

Sometimes the charter of a corporation forbids the declaring of a dividend exceeding a certain per cent of the par value of its stock. In this case the directors may find it desirable to "water" the stock—that is, issue additional shares. This increase in the number of shares of course reduces the percentage of dividend, although the same profit in the aggregate is secured to the stockholders.

BONDS.

A *bond* is in the nature of a promissory note—the obligation of a corporation, state, county or city to pay a certain sum of money at a certain time, with interest payable at fixed periods or upon certain conditions.

The bond of a company may be a perfectly safe investment, when the stock is not; and the stock of a prosperous and successful company, paying large dividends or having a large surplus, may sell at a higher price than the bonds of the same company, the income from which is limited to the agreed rate of interest which they bear. A much closer scrutiny should be made of a company's standing when one thinks of investing in its share capital, than when it is the intention to loan the company money on its mortgage bonds.

Generally the bonds of business corporations are secured by mortgage, but some classes of bonds are dependent on the solvency or good faith of the company issuing them.

The *coupons* attached to bonds represent the different installments of interest, and are to be cut off and collected from time to time as the interest becomes payable. Bonds are sometimes issued without coupons, and are then called *registered bonds*. Such bonds are payable only to the registered owner, and the interest on these is paid by check. *Convertible bonds* are such as contain provisions whereby they may be exchanged for stock, lands or other property.

Bonds are known as First Mortgage, Second Mortgage, etc., Debentures, Consols, Convertible Land Grant, Sinking Fund, Adjustment, Income or otherwise, according to their priority of lien, the class of property upon which they are secured, etc. Income bonds are generally bonds on which the interest is only payable if earned, and ordinarily are not secured by mortgage. Bonds are also named from the rate of interest they bear, or from the dates at which they are payable or redeemable, or from both; as, U. S. 4's 1907, Virginia 6's, Western Union 7's, coupon, 1900, Lake Shore reg. 2d, 1903.

GOVERNMENT BONDS.

OUR GOVERNMENT found it necessary to borrow large sums of money to prosecute the war of the Rebellion, and in return issued interest-bearing bonds. All of these bonds now outstanding are payable in coin, except only the currency 6's, and all are exempt from taxation.

The following is a complete list of bonds outstanding in 1892:

4½'s OF 1891—CONTINUED AT 2 PER CENT. Authorized by acts of July 14, 1870, and Jan. 20, 1871, and issued for the purpose of funding the 5-20 and 10-40 bonds. The original issue was $250,000,000. In 1891, in view of the requirements of the sinking fund for 1892, it was deemed advisable to suspend the redemption of these bonds until after that year should begin, and to reserve the residue of the loan for readjustment. The amount outstanding subject to settlement at the option of the Government after Sept. 1, 1891, was $50,869,200. The holders of the bonds were offered their choice of presenting them for redemption with interest to Sept. 2, or for continuance at the pleasure of the Government with interest at 2 per cent. Amount outstanding at 2 per cent, $25,364,500.

4's OF 1907. Authorized by acts of July 14, 1870, and January 20, 1871, and issued for the purpose of funding the 5-20 and 10-40 bonds. Redeemable at option of Government after 30 years from their date, or after July 1, 1907.

CURRENCY 6's. Issued to aid in construction of the Pacific railroads, and authorized by acts of July 1, 1862, and July 2, 1864. Principal and interest payable in lawful money of the United States. Payable 30 years after date, and maturing at different dates from 1895 to 1899.

REFUNDING CERTIFICATES. Authorized by act of February 26, 1879. These certificates are of the denomination of $10, bear interest at 4 per cent, and are convertible at any time, with accrued interest, into 4 per cent bonds.

All Government bonds are dealt in and quoted "flat"—that is to say, the quoted market price is for the bond as it stands at the time, including the accrued interest—except that after the closing of the transfer books the registered bonds are quoted ex-interest—that is to say, the interest then coming due belongs to the holder of the bond at the time of the closing of the books, and does not go with the bond to the purchaser.

Coupon bonds, being payable to bearer, pass by delivery without assignment, and are therefore more convenient for sale and delivery than registered bonds, which must be assigned by the party in whose name they are registered. The interest coupons, being also payable to the bearer, will be cashed by any bank or banker.

The interest on registered bonds is paid by checks, made to the order of the registered owner and sent to him by mail. These checks, when properly endorsed, can be collected and cashed through any bank or banker.

Coupon bonds may be converted into registered bonds of the same issue, but there is no provision of law for converting registered bonds into coupon bonds.

· · · 1890 · · ·

THE McKINLEY TARIFF BILL.

Comparison of New Rates with the Old.

AN ACT to reduce the revenue and equalize duties on imports, and for other purposes.

BE IT *ENACTED by the Senate and House of Representatives of the United States of America in Congress assembled*, That on and after the sixth day of October, eighteen hundred and ninety, unless otherwise specially provided for in this act, there shall be levied, collected, and paid upon all articles imported from foreign countries, and mentioned in the schedules herein contained, the rates of duty which are, by the schedules and paragraphs, respectively prescribed, namely:

(All changes from the old law are indicated by foot-notes or by italics.

Schedule A.—Chemicals, Oils and Paints.

ACIDS.

1. Acetic or pyroligneous acid, not exceeding the specific gravity of one and forty-seven one-thousandths, one and one-half cents per pound; exceeding the specific gravity of one and forty-seven one-thousandths, four cents per pound. [Old law: Two cents and four cents.]

2. Boracic acid, five cents per pound. [Old law: Pure, five cents per pound; commercial, four cents.]

3. Chromic acid, six cents per pound. [Old law: Fifteen per centum.]

4. Citric acid, ten cents per pound.

5. Sulphuric acid or oil of vitriol, not otherwise specially provided for, one-fourth of one cent per pound. [Old law: Free under general provision for acids.]

6. Tannic acid or tannin, seventy-five cents per pound. [Old law: One dollar per pound.]

7. Tartaric acid, ten cents per pound.

8. Alcoholic perfumery, including cologne-water and other toilet waters, two dollars per gallon and fifty per centum ad valorem; alcoholic compounds not specially provided for in this act, two dollars per gallon and twenty-five per centum ad valorem.

9. Alumina, alum, alum cake, patent alum, sulphate of alumina, and aluminous cake, and alum in crystals or ground, six-tenths of one cent per pound.

10. Ammonia.—Carbonate of, one and three-fourths cents per pound; muriate of, or sal-ammoniac, three-fourths of one cent per pound; sulphate of, one-half of one cent per pound. [Old law: Carbonate of, twenty per centum; muriate of, ten per centum; sulphate of, twenty per centum.]

11. Blacking of all kinds, twenty-five per centum ad valorem.

12. Blue vitriol, or sulphate of copper, two cents per pound. [Old law: Three cents per pound.]

13. Bone-char, suitable for use in decolorizing sugars, twenty-five per centum ad valorem. [Old law: All bone-char twenty-five per centum.]

14. Borax, crude, or borate of soda, or borate of lime, three cents per pound; refined borax, five cents per pound.

15. Camphor, refined, four cents per pound. [Old law: Five cents per pound.]

16. Chalk, prepared, precipitated, French, and red, one cent per pound; all other chalk preparations not specially provided for in this act, twenty per centum ad valorem.

17. Chloroform, twenty-five cents per pound. [Old law: Fifty cents per pound.]

COAL-TAR PREPARATIONS.

18. All coal-tar colors or dyes, by whatever name known, and not specially provided for in this act, thirty-five per centum ad valorem.

19. All preparations of coal-tar, not colors or dyes, not specially provided for in this act, twenty per cent. ad valorem.

20. Cobalt, oxide of, thirty cents per pound. [Old law: Twenty per centum.]

21. Collodion and all compounds of pyroxyline, by whatever name known, fifty cents per pound; rolled or in sheets, but not made up into articles sixty cents per pound; if in finished or partly-finished articles, sixty cents per pound and twenty-five per centum ad valorem.

22. Coloring for brandy, wine, beer, or other liquors, fifty per centum ad valorem. [Text of old law: Coloring for brandy, fifty per centum.]

23. Copperas or sulphate of iron, three-tenths of one cent per pound.

24. Drugs, such as barks, beans, berries, balsams, buds, bulbs, and bulbous roots, and excrescences, such as nut-galls, fruits, flowers, dried fibers, grains, gums, and gum resins, herbs, leaves, lichens, mosses, nuts, roots and stems, spices, vegetables, seeds (aromatic, not garden seeds), and seeds of morbid growth, weeds, woods used expressly for dyeing, and dried insects, any of the foregoing which are not edible, but which have been advanced in value or condition by refining or grinding, or by other process of manufacture, and not specially provided for in this act, ten per centum ad valorem.

25. Ethers sulphuric, forty cents per pound; spirits of nitrous ether, twenty-five cents per pound; fruit ethers, oils or essences, two dollars and fifty cents per pound; ethers of all kinds not specially pro-

vided for in this act, one dollar per pound. [Old law: Ethers sulphuric, fifty cents per pound; nitrous ether, thirty cents per pound; ethers all other, one dollar per pound; oenanthic, or oil of cognac, four dollars per ounce; fruit ethers, etc., two dollars and fifty cents per pound; oil or essence of rum, fifty cents per ounce.]

26. Extracts and decoctions of logwood and other dye-woods, extract of sumac, and extracts of barks, such as are commonly used for dyeing or tanning, not specially provided for in this act, seven-eighths of one cent per pound; extracts of hemlock bark, one-half of one cent per pound. [Old law: Logwood and other dye-woods, extract, ten per centum: sumac extract, twenty per centum; extract of hemlock and other barks for tanning, twenty per centum.]

27. Gelatine, glue, and isinglass or fish-glue, valued at not above seven cents per pound, one and one-half cents per pound; valued at above seven cents per pound and not above thirty cents per pound, twenty-five per centum ad valorem, valued at above thirty cents per pound, thirty per centum ad valorem. [Old law: Glue, twenty per centum; gelatine, thirty per centum; fish-glue or isinglass, twenty-five per centum.]

28. Glycerine, crude, not purified, one and three-fourths cents per pound. Refined, four and one-half cents per pound. [Old law: Crude, two cents per pound; refined, five cents pound.]

29. Indigo, extracts, or pastes of, three-fourths of one cent per pound; carmined, ten cents per pound. [Old law: All ten per centum.]

30. Ink and ink powders, printers' ink, and all other ink, not specially provided for in this act, thirty per centum ad valorem. [Old law: Ink of all kinds and ink-powders, thirty per centum.]

31. Iodine, resublimed, thirty cents per pound.

32. Idoform, one dollar and fifty cents per pound. [Old law: Two dollars per pound.]

33. Licorice, extracts of, in paste, rolls, or other forms, five and one-half cents per pound. [Old law: Paste or roll, seven and one-half cents per pound; juice, three cents pound.]

34. Magnesia, carbonate of, medicinal, four cents per pound; calcined, eight cents per pound; sulphate of, or Epsom salts, three-tenths of one cent per pound. [Old law: Carbonate of, five cents per pound; calcined, ten cents per pound; sulphate, twelve cents per pound.]

35. Morphia, or morphine, and all salts thereof, fifty cents per ounce. [Old law: One dollar per pound.]

OILS.

36. Alizarine assistant, or soluble oil, or oleate of soda, or Turkey red oil, containing fifty per centum or more of castor oil, eighty cents per gallon; containing less than fifty per centum of castor oil, forty cents per gallon; all other, thirty per centum ad valorem. [Old law: By ruling of Treasury Department as castor oil at eighty cents per gallon.]

37. Castor oil, eighty cents per gallon.

38. Cod-liver oil, fifteen cents per gallon. [Old law: Twenty-five per centum.]

39. Cotton-seed oil, ten cents per gallon of seven and one-half pounds weight. [Old law: Twenty-five cents per gallon.]

40. Croton oil, thirty cents per pound. [Old law: Fifty cents per pound.]

41. Flaxseed or linseed and poppy-seed oil, raw, boiled, or oxidized, thirty-two cents per gallon of seven and one-half pounds weight. [Old law: Twenty-five cents per gallon; poppy oil, free.]

42. Fusel oil, or amylic alcohol, ten per centum ad valorem.

43. Hemp-seed oil and rape-seed oil, ten cents per gallon.

44. Olive oil, fit for salad purposes, thirty-five cents per gallon. [Old law: Twenty-five per centum.]

45. Peppermint oil, eighty cents per pound. [Old law: Twenty five per centum.]

46. Seal, herring, whale, and other fish oil not specially provided for in this act, eight cents per gallon. [Old law: Twenty-five per centum.]

47. Opium, aqueous extract of, for medicinal uses, and tincture of, as laudanum, and all other liquid preparations of opium, not specially provided for in this act, forty per centum ad valorem.

48. Opium containing less than nine per centum of morphia, and opium prepared for smoking, twelve dollars per pound; but opium prepared for smoking and other preparations of opium deposited in bonded-warehouse shall not be removed therefrom without payment of duties, and such duties shall not be refunded. [Old law: Ten dollars per pound on opium for smoking; containing less than nine per centum of opium prohibited; opium, crude, containing nine per centum or more, one dollar per pound.]

PAINTS, COLORS AND VARNISHES.

49. Baryta, sulphate of, or barytes, including barytes earth, unmanufactured, one dollar and twelve cents per ton; manufactured, six dollars and seventy-two cents per ton. [Old law: Unmanufactured, ten per centum; manufactured, one-quarter cent per pound.]

50. Blues, such as Berlin, Prussian, Chinese, and all others, containing ferrocyanide of iron, dry or ground in or mixed with oil, six cents per pound; in pulp, or mixed with water, six cents per pound on the material contained therein when dry. [Old law: Twenty per centum.]

51. Blanc-fixe, or satin white, or artificial sulphate of barytes, three-fourths of one cent per pound. [Old law: Twenty-five per centum.]

52. Black, made from bone, ivory, or vegetable, under whatever name known, including bone-black and lamp-black, dry or ground in oil or water, twenty-five per centum ad valorem. [Old law: Change in text, but same rate.]

53. Chrome yellow, chrome green, and all other chromium colors in which lead and bichromate of potash or soda are component parts, dry, or ground in or mixed with oil, four and one-half cents per pound; in pulp or mixed with water, four and one-half cents per pound on the material contained therein when dry. [Old law: Twenty-five per centum.]

54. Ocher and other ochery earths, sienna and sienna earths, umber and umber earths not specially provided for in this act, dry, one-fourth of one cent per pound; ground in oil, one and one-half cents per pound. [Old law: Dry, one-half cent per pound, in oil, one cent per pound.]

55. Ultramarine blue, four and one-half cents per pound. [Old law: Five cents per pound.]

56. Varnishes, including so-called gold size or Japan, thirty-five per centum ad valorem; and on spirit varnishes for the alcohol contained therein, one dollar and thirty-two cents per gallon additional. [Old law: Forty per centum ad valorem on varnish; gold size, free; Japan, forty per centum by Treasury ruling.]

57. Vermilion red, and colors containing quicksilver, dry or ground in oil or water, twelve cents per pound. [Old law: Twenty-five per centum.]

58. Wash blue, containing ultramarine, three cents per pound. [Old law: Twenty per centum.]

59. Whiting and Paris white, dry, one-half of one cent per pound; ground in oil, or putty, one cent per pound.]

60. Zinc, oxide of, *and white paint containing zinc, but not containing lead*, dry, one and one-fourth cents per pound; ground in oil, one and three-fourths cents per pound.

61. All other paints and colors, whether dry or mixed, or ground in water or oil, including lakes, crayons, smalts, and frostings, not specially provided, for in this act, and artists' colors of all kinds, in tubes or otherwise, twenty-five per centum ad valorem; all paints and colors mixed or ground with water or solutions other than oil, and commercially known as artists' water color paints, thirty per centum ad valorem. [Old law: Twenty-five per centum on all. Entire change of text.]

LEAD PRODUCTS.

62. Acetate of lead, white, five and one-half cents per pound; brown, three and one-half cents per pound.]

63. Litharge, three cents per pound.

64. Nitrate of lead, three cents per pound.

65. Orange mineral, three and one-half cents per pound. [Old law: Three cents per pound.]

66. Red lead, three cents per pound.

67. White lead, *and white paint containing lead* dry or in pulp, or ground or mixed with oil, three cents per pound.

68. Phosphorus, twenty cents per pound. [Old law: Ten cents per pound.]

POTASH.

69. Bichromate and chromate of, three cents per pound.

70. Caustic or hydrate of, refined in sticks or rolls, one cent per pound. [Old law: Twenty per centum.]

71. Hydriodate, iodide, and iodate of, fifty cents per pound.

72. Nitrate of, or saltpeter, refined, one cent per pound. [Old law: One and one-half cents per pound.]

73. Prussiate of, red, ten cents per pound; yellow, five cents per pound.

PREPARATIONS.

74. All medicinal preparations, including medicinal proprietary preparations, of which alcohol is a component part, or in the preparation of which alcohol is used, not specially provided for in this act, fifty cents per pound. [Old law: Change of text. Hoffman's anodyne, thirty cents per pound.]

75. All medicinal preparations, including medicinal proprietary preparations, of which alcohol is not a component part, and not specially provided for in this act, twenty-five per centum ad valorem; calomel and other mercurial medicinal preparations, thirty-five per centum ad valorem. [Old law: Twenty-five per centum, and fifty per centum.]

76. Products or preparations known as alkalies, alkaloids, distilled oils, essential oils, expressed oils, rendered oils, and all combinations of the foregoing, and all chemical compounds and salts, not specially provided for in this act, twenty-five per centum ad valorem.

77. Preparations used as applications to the hair, mouth, teeth or skin, such as cosmetics, dentifrices, pastes, pomades, powders and tonics, including all known as toilet preparations, not specially provided for in this act, fifty per centum ad valorem. [Change of text.]

78. Santonine and all salts thereof containing eighty per centum or over of santonine, two dollars and fifty cents per pound. [Old law: Three dollars per pound.]

79. Soap: Castile soap, one and one-fourth cents per pound; fancy, perfumed, and all descriptions of toilet-soap, fifteen cents per pound; all other soaps, not specially provided for in this act, twenty per centum ad valorem. [Old law: Castile soap, twenty per centum.]

SODA.

80. Bicarbonate of soda or supercarbonate of soda or saleratus, one cent per pound. [Old law: One and one-half cents per pound.]

81. Hydrate of, or caustic soda, one cent per pound.

82. Bichromate and chromate of, three cents per pound. [Old law: Not enumerated, but classified under bichromate of potash at three cents per pound.]

83. Sal-soda, or soda-crystals, and soda-ash, one-fourth of one cent per pound.

84. Silicate of soda, or other alkaline silicate, one-half of one cent per pound.

85. Sulphate of soda, or salt-cake or niter-cake, one dollar and twenty-five cents per ton. [Old law: Twenty per centum.]

86. Sponges, twenty per centum ad valorem.

87. Strychnia, or strychnine, and all salts thereof, forty cents per ounce. [Old law: Fifty cents per ounce.]

88. Sulphur, refined, eight dollars per ton; sublimed, or flowers of, ten dollars per ton. [Old law: Refined, ten dollars per ton flowers, twenty dollars per ton.]

89. Sumac, ground, four-tenths of one cent per pound. [Old law: Three-tenths cent per pound.]

90. Tartar, cream of, and patent tartar, six cents per pound.

91. Tartars and lees crystals, partly refined, four cents per pound.

92. Tartrate of soda and potassa, or Rochelle salts, three cents per pound.

Schedule B.—Earths, Earthenware and Glassware.

BRICK AND TILE.

93. Fire-brick, not glazed, enameled, ornamented, or decorated in any manner, one dollar and twenty-five cents per ton; glazed, enameled, ornamented, or decorated, forty-five per centum ad valorem. [Old law: Fire-brick, twenty per centum; brick, twenty-five per centum.]

94. Tiles and brick, other than fire- brick, not glazed, ornamented, painted, enameled, vitrified or decorated, twenty-five per centum ad valorem; ornamented, glazed, painted, enameled, vitrified, or decorated, and all encaustic, forty-five per centum ad valorem. [Old law: Encaustic tiles, thirty-five per centum; roofing and paving tiles, twenty per centum, and some classed by Treasury rulings as plaques, etc., at sixty per centum.]

CEMENT, LIME AND PLASTER.

95. Roman, Portland, and other hydraulic cement in barrels, sacks, or other packages, eight cents per one hundred pounds, including weight of barrel or package; in bulk, seven cents per one hundred pounds; other cement, twenty per centum ad valorem. [Old law: Twenty per centum.]

96. Lime, six cents per one hundred pounds, including weight of barrel or package. [Old law: Ten per centum.]

97. Plaster of Paris, or gypsum, ground, one dollar per ton; calcined, one dollar and seventy-five cents per ton. [Old law: Twenty per centum.]

CLAYS OR EARTHS.

98. Clays or earths, unwrought or unmanufactured, not specially provided for in this act, one dollar and fifty cents per ton; wrought or manufactured, not specially provided for in this act, three dollars per ton; china clay, or kaolin, three dollars per ton.

EARTHENWARE AND CHINA.

99. Common brown earthenware, common stoneware, and crucibles, not ornamented or decorated in any manner, twenty-five per centum ad valorem. [Old law: Stoneware above the capacity of ten gallons, twenty per centum; crucibles, twenty-five per centum.]

100. China, porcelain, parian, bisque, earthen, stone and crockery ware, including placques, ornaments, toys, charms, vases, and statuettes, painted, tinted, stained, enameled, printed, gilded, or otherwise decorated or ornamented in any manner, sixty per centum ad valorem; if plain white, and not ornamented or decorated in any manner, fifty-five per centum ad valorem. [NOTE.—The text is made more comprehensive than in the old law.]

101. All other china, porcelain, parian, bisque, earthen, stone, and crockery ware, and manufactures of the same, by whatsoever designation or name known in the trade, including lava tips for burners, not specially provided for in this act, if ornamented or decorated in any manner, sixty per centum ad valorem; if not ornamented or decorated, fifty-five per centum ad valorem. [Old law: Fifty-five per centum.]

102. Gas retorts, three dollars each. [Old law: Twenty-five per centum.]

GLASS AND GLASSWARE.

103. Green, and colored, molded or pressed, and flint, and lime glass bottles, holding more than one pint, and demijohns, and carboys (covered or uncovered), and other molded or pressed green and colored and flint or lime bottle glassware, not specially provided for in this act, one cent per pound. Green and colored, molded or pressed, and flint, and lime glass bottles, and vials holding not more than one pint and not less than one-quarter of a pint, one and one-half cents per pound; if holding less than one-fourth of a pint, fifty cents per gross. [Old law: Green and colored, one cent per pound; flint and lime, forty per centum.]

104. All articles enumerated in the preceding paragraph, if filled, and not otherwise provided for in this act, and the contents are subject to an ad valorem rate of duty, or to a rate of duty based upon the value, the value of such bottles, vials or other vessels shall be added to the value of the contents for the ascertainment of the dutiable value of the latter; but if filled, and not otherwise provided for in this act, and the contents are not subject to an ad valorem rate of duty, or to rate of duty based on the value, or are free of duty, such bottles, vials, or other vessels shall pay, in addition to the duty, if any, on their contents, the rates of duty prescribed in the preceding paragraph: *Provided*, That no article manufactured from glass described in the preceding paragraph shall pay a less rate of duty than forty per centum ad valorem. [Old law: Green and colored, thirty per centum; flint and lime, forty per centum, in addition to duty on contents.]

105. Flint and lime, pressed glassware, not cut, engraved, painted, etched, decorated, colored, printed, stained, silvered or gilded, sixty per centum ad valorem. [Old law: Forty per centum.]

106. All articles of glass, cut, engraved, painted, colored, printed, stained, decorated, silvered or gilded, not including plate glass silvered, or looking-glass plates, sixty per centum ad valorem. [Old law: Forty-five per centum.]

107. Chemical glassware *for use in laboratory, and not otherwise specially provided for in this act*, forty-five per centum ad valorem.

108. Thin-blown glass, blown with or without a mold, including glass chimneys and all other manufactures of glass, or of which glass shall be the component material of chief value, not specially provided for in this act, sixty per centum ad valorem. [Old law: Mostly forty and forty-five per centum.]

109. Heavy-blown glass, blown with or without a mold, not cut or decorated, finished or unfinished, sixty per centum ad valorem. [Old law: Forty per centum.]

110. Porcelain or opal glassware, sixty per centum ad valorem. [Old law: Forty per centum.]

111. All cut, engraved, painted or otherwise ornamented or decorated glass bottles, decanters, or other vessels of glass shall, if filled, pay duty in addition to any duty chargeable on the contents, as if not filled, unless otherwise specially provided for in this act.

112. Unpolished cylinder, crown, and common window-glass, not exceeding ten by fifteen inches square, one and three-eighths cents per pound; above that, and not exceeding sixteen by twenty-four inches square, one and seven-eighths cents per pound; above that and not exceeding twenty-four by thirty inches square, two and three-eighths cents per pound; above that, and not exceeding twenty-four by thirty-six inches square, two and seven-eighths cents per pound; all above that, three and one-eighth cents per pound: *Provided*, That unpolished cylinder, crown and common window-glass, imported in boxes, shall contain fifty square feet, as nearly as sizes will permit, and the duty shall be computed thereon according to the actual weight of glass. [Old law: To ten by fifteen, one and three-eighths cents square foot; above that to sixteen by twenty-four, one and seven-eighths; above that to twenty-four by thirty, two and three-eighths; all above, two and seven-eighths, with an allowance for box weight on single thick of five pounds, and on double thick of ten pounds.]

113. Cylinder and crown-glass, polished, not exceeding sixteen by twenty-four inches square, four cents per square foot; above that, and not exceeding twenty-four by thirty inches square, six cents per square foot; above that, and not exceeding twenty-four by sixty inches square, twenty cents per square foot; above that, forty cents per square foot. [Old law: To ten by fifteen, two and one-half cents square foot; above that to sixteen by twenty-four, four cents; above that to twenty-four by thirty, six cents; above that to twenty-four by sixty, twenty cents; all above that, forty cents.]

114. Fluted, rolled, or rough plate-glass, not including crown, cylinder or common window-glass, not exceeding ten by fifteen inches square, three-fourths of one cent per square foot; above that, and not exceeding sixteen by twenty-four inches square, one cent per square foot; above that, and not exceeding twenty-four by thirty inches square, one and one-half cents per square foot; all above that, two cents per square foot; and all fluted, rolled, or rough plate-glass, weighing over one hundred pounds per one hundred square feet, shall pay an additional duty on the excess at the same rates herein imposed: *Provided, That all of the above plate-glass when ground, smoothed, or otherwise obscured shall be subject to the same rate of duty as cast polished plate-glass unsilvered.* [Old law: Was the same, omitting the proviso.]

115. Cast polished plate-glass, *finished or unfinished* and unsilvered, not exceeding sixteen by twenty-four inches square, five cents per square foot; above that, and not exceeding twenty-four by thirty inches square, eight cents per square foot; above that, and not exceeding twenty-four by sixty inches square, twenty-five cents per square foot; all above that, fifty cents per square foot. [Old law: In addition to above had a bracket not exceeding ten by fifteen at three cents per square foot, but did not contain the words "finished or unfinished."]

116. Cast polished plate-glass, silvered, and looking-glass plates, not exceeding sixteen by twenty-four inches square, six cents per square foot; above that, and not exceeding twenty-four by thirty inches square, ten cents per square foot; above that, and not exceeding twenty-four by sixty inches square, thirty-five cents per square foot; all above that, sixty cents per square foot. [Old law has a bracket up to ten by fifteen at four cents per square foot.]

117. But no looking-glass plates, or plate-glass silvered, when framed, shall pay a less rate of duty than that imposed upon similar glass of like description not framed, but shall pay in addition thereto upon such frames the rate of duty applicable thereto when imported separate. [Old law: Additional duty of thirty per centum on the frames.]

118. Cast polished plate-glass, silvered or unsilvered, and cylinder, crown or common window-glass, when ground, obscured, frosted, sanded, enameled, beveled, etched, embossed, engraved, stained, colored, or otherwise ornamented or decorated, shall be subject to a duty of ten per centum ad valorem in addition to the rates otherwise chargeable thereon. [Not in old law.]

119. Spectacles and eyeglasses, or spectacles and eyeglass-frames, sixty per centum ad valorem. [Old law: Forty-five per centum or twenty-five per centum or according to component of chief value.]

120. On lenses costing one dollar and fifty cents per gross pairs, or less, sixty per centum ad valorem. [Old law: Forty-five per centum.]

121. Spectacles and eyeglass lenses with their edges ground or beveled to fit frames, sixty per centum ad valorem. [Old law: Forty-five per centum or free.]

122. All stained or painted window-glass and stained or painted glass windows, and hand, pocket, or table mirrors not exceeding in size one hundred and forty-four square inches, with or without frames or cases, of whatever material composed, lenses of glass or pebble, wholly or partly manufactured, and not specially provided for in this act, and fusible enamel, forty-five per centum ad valorem. [Old law: Forty-five per centum, thirty per centum, ten per centum.]

MARBLE AND STONE, AND MANUFACTURES OF.

123. Marble of all kinds in block, rough or squared, sixty-five cents per cubic foot.

124. Veined marble, sawed, dressed, or otherwise, including marble slabs and marble paving tiles, one dollar and ten cents per cubic foot (but in measurement no slab shall be computed at less than one inch in thickness). [Old law does not contain the words in parenthesis.]

125. Manufactures of marble not specially provided for in this act, fifty per centum ad valorem.

STONE.

126. Burr-stones manufactured or bound up into mill-stones, fifteen per centum ad valorem. [Old law: Twenty per centum.]

127. Freestone, granite, sandstone, limestone and other building or monumental stone, except marble, unmanufactured or undressed, not specially provided for in this act, eleven cents per cubic foot. [Old law: One dollar per ton.]

128. Freestone, granite, sandstone, limestone, and other building or monumental stone, except marble, not specially provided for in this act, hewn, dressed or polished, forty per centum ad valorem. [Old law: Twenty per centum.]

129. Grindstones, finished or unfinished, one dollar and seventy-five cents per ton.

SLATE.

130. Slate, slate chimney-pieces, mantels, slabs for tables and all other manufactures of slate, not specially provided for in this act, thirty per centum ad valorem.

131. Roofing slates, twenty-five per centum ad valorem.

Schedule C.—Metals and Manufactures of.

IRON AND STEEL.

132. Chromate of iron, or chromic ore, fifteen per centum ad valorem.

133. Iron ore, including manganiferous iron ore, also the dross or residuum from burnt pyrites, seventy-five cents per ton. Sulphur ore, as pyrites, or sulphuret of iron in its natural state containing not more than three and one-half per centum copper, seventy-five cents per ton: *Provided*, That ore containing more than two per centum of copper shall pay, in addition thereto, one-half of one cent per pound for the copper contained therein: *Provided, also, That sulphur ore as pyrites or sulphuret of iron in its natural state, containing in excess of twenty-five per centum of sulphur, shall be free of duty, except on the copper contained therein, as above provided: And provided further, That in levying and collecting the duty on iron ore no deduction shall be made from the weight of the ore on account of moisture which may be chemically or physically combined therewith.* [Old law: The copper was dutiable at two and one-half cents per pound. The last two provisos are new matter.]

134. Iron in pigs, iron kentledge, spiegeleisen, ferro-manganese, ferro-silicon, wrought and cast scrap iron, and scrap steel, three-tenths of one cent per pound; but nothing shall be deemed scrap iron or scrap steel except waste or refuse iron or steel fit only to be remanufactured. [Old law: Did not contain ferro-manganese or ferro-silicon. The scrap iron was confined to that which had been in actual use.]

135. Bar-iron, rolled or hammered, comprising flats not less than one inch wide, nor less than three-eighths of one inch thick, eight-tenths of one cent per pound; round iron not less than three-fourths of one inch in diameter, and square iron not less than three-fourths of one inch square, nine-tenths of one cent per pound; flats less than one inch wide, or less than three-eighths of one inch thick; round iron less than three-fourths of one inch and not less than seven-sixteenths of one inch in diameter, and square iron less than three-fourths of one inch square, one cent per pound. [Old law: The respective rates were eight-tenths cent per pound, one cent per pound, one and one-tenth cents per pound.]

136. Round iron, in coils or rods, less than seven-sixteenths of one inch in diameter, and bars or shapes of rolled iron, not specially provided for in this act, one and one-tenth cents per pound: *Provided*, That all iron in slabs, blooms, loops, or other forms less finished than iron in bars, and more advanced than pig-iron, except castings, shall be rated as iron in bars, and be subject to a duty of eight-tenths of one cent per pound; and none of the iron above enumerated in this paragraph shall pay a less rate of duty than thirty-five per centum ad valorem: *Provided further*, That all iron bars, blooms, billets, or sizes or shapes of any kind, in the manufacture of which charcoal is used as fuel, shall be subject to a duty of not less than twenty-two dollars per ton. [Old law: One and two-tenths cents per pound.]

137. Beams, girders, joists, angles, channels, car-truck channels, TT, columns and posts, or parts of sections of columns and posts, deck and bulb beams, and building forms, together with all other structural shapes of iron or steel, whether plain or punched, or fitted for use, nine-tenths of one cent per pound. [Old law: One and one-fourth cents per pound.]

138. Boiler, or other plate iron or steel, except saw plates hereinafter provided for, not thinner than number ten wire gauge, sheared or unsheared, and skelp iron or steel sheared or rolled in grooves, valued at one cent per pound or less, five-tenths of one cent per pound; valued above one cent and not above one and four-tenths cents per pound, sixty-five hundredths of one cent per pound; valued above one and four-tenths cents and not above two cents per pound, eight-tenths of one cent per pound; valued above two cents and not above three cents per pound, one and one-tenth cents per pound; valued above three cents and not above four cents per pound, one and five-tenths cents per pound; valued above four cents and not above seven cents per pound, two cents per pound; valued above seven cents and not above ten cents per pound, two and eight-tenths cents per pound; valued above ten cents and not above thirteen cents per pound, three and one-half cents per pound; valued above thirteen cents per pound, forty-five per centum ad valorem: *Provided*, That all plate iron or steel thinner than number ten wire gauge shall pay duty as iron or steel sheets. [Old law: Boiler or other plate iron, one and one-fourth cents per pound if iron; forty-five per centum if steel.]

139. Forgings of iron or steel, or forged iron and steel combined, of whatever shape, or in whatever stage of manufacture, not specially provided for in this act, two and three-tenths cents per pound: *Provided*, That no forgings of iron or steel, or forgings of iron and steel combined, by whatever process made, shall pay a less rate of duty than forty-five per centum ad valorem. [Old law: Forgings of iron and steel, or forged iron, of whatever shape, or in whatever stage of manufacture, not specially enumerated or provided for in this act, two and one-half cents per pound.]

140. Hoop, or band, or scroll, or other iron or steel, valued at three cents per pound or less, eight inches or less in width, and less than three-eighths of one inch thick and not thinner than number ten wire gauge, one cent per pound; thinner than number ten wire gauge and not thinner than number twenty wire gauge, one and one-tenth cents per pound; thinner than number twenty wire gauge, one and three-tenths cents per pound: *Provided*, That hoop or band iron, or hoop or band steel, cut to length, or wholly or partially manufactured into hoops or ties for baling purposes, barrel hoops of iron or steel, and hoop or band iron, or hoop or band steel flared, splayed, or punched, with or without buckles or fastenings, shall pay two-tenths of one cent per pound more duty than that imposed on the hoop or band iron or steel from which they are made. [Old law: Hoop, or band, or scroll, or other iron, eight inches or less in width, and not thinner than number ten wire gauge, one cent per pound; thinner than number ten wire gauge, and not thinner than number twenty wire gauge, one and two tenths of one cent per pound; thinner than number twenty wire gauge, one and four tenths of one cent per pound: *Provided*, That all articles not specially enumerated or provided for in this act, whether wholly or partly manufactured, made from sheet, plate, hoop, band or scroll iron herein provided for or of which such sheet, plate, hoop, band or scroll iron shall be the material of chief value, shall pay one-fourth of one cent per pound more duty than that imposed on the iron from which they are made, or which shall be such material of chief value. If steel, forty-five per centum: Iron and steel cotton ties, or hoops for baling purposes, not thinner than number twenty wire gauge, thirty-five per centum ad valorem. If steel, forty-five per centum. Sheet iron, common or black, thinner than one inch and one-half and not thinner than number twenty wire gauge, one and one-tenth of one cent per pound; thinner than number twenty wire gauge and not thinner than number twenty-five wire gauge, one and two tenths of one cent per pound, thinner than number twenty-five wire gauge and not thinner than number twenty-nine wire gauge, one and five-tenths of one cent per pound, thinner than number twenty-nine wire gauge, and all iron commercially known as common or black taggers iron, whether put up in boxes or bundles or not, thirty per centum ad valorem.]

141. Railway-bars, made of iron or steel, and railway-bars made in part of steel, T-rails, and punched iron or steel flat rails, six-tenths of one cent per pound. [Old law: Iron or steel tee rails weighing not over twenty-five pounds to the yard, nine-tenths of one cent per pound; iron or steel flat rails, punched, eight-tenths of one cent per pound. Iron railway bars, weighing more than twenty-five pounds to the yard, seven-tenths of one cent per pound. Steel railway bars and railway bars made in part of steel, weighing more than twenty-five pounds to the yard, seventeen dollars per ton.]

142. Sheets of iron or steel, common or black, including all iron or steel commercially known as common or black taggers iron or steel, and skelp iron or steel, valued at three cents per pound or less, thinner than number ten and not thinner than number twenty wire gauge, one cent per pound; thinner than number twenty wire gauge, and not thinner than number twenty-five wire gauge, one and one-tenths cents per pound; thinner than number twenty-five wire gauge, one and four-tenths cents per pound; corrugated or crimped, one and four-tenths cents per pound: *Provided*, That all common or black sheet iron, or sheet steel not thinner than number ten wire gauge shall pay duty as plate iron or plate steel. [Old law: Sheet iron, common or black, thinner than one inch and one-half and not thinner than number twenty wire gauge, one and one-tenth of one cent per pound thinner than number twenty wire gauge and not thinner than number twenty-five wire gauge, one and two-tenths of one cent per pound; thinner than number twenty-five wire gauge and not thinner than number twenty-nine wire gauge, one and five-tenths of one cent per pound; thinner than number twenty-nine wire gauge and all iron commercially known as common or black taggers iron, whether put up in boxes or bundles or not, thirty per centum ad valorem.]

143. All iron or steel sheets or plates, and all hoop, band or scroll iron or steel, excepting what are known commercially as tin plates, terne plates, and taggers tin, and hereinafter provided for, when galvanized or coated with zinc or spelter, or other metals, or any alloy of those metals, shall pay three-fourths of one cent per pound more duty than the rates imposed by the preceding paragraph upon the corresponding gauges or forms, of common or black sheet or taggers iron or steel; and on and after July first, eighteen hundred and ninety-one, all iron or steel sheets or plates, or taggers iron coated with tin or lead or with a mixture of which these metals or either of them is a component part, by the dipping or any other process, and commercially known as tin plates, terne plates, and taggers tin, shall pay two and two-tenths cents per pound: *Provided*, That, on and after July first, eighteen hundred and ninety-one, manufactures of which tin, tin plates, terne plates, taggers tin, or either of them, are component materials of chief value, and all articles, vessels or wares manufactured, stamped or drawn from sheet iron or sheet steel, such material being the component of chief value, and coated wholly or in part with tin or lead or a mixture of which these metals or either of them is a component part, shall pay the duty of fifty-five per centum ad valorem: *Provided*, That on and after October first, eighteen hundred and ninety-seven, tin plates and terne plates lighter in weight than sixty-three pounds per hundred square feet shall be admitted free of duty unless it shall be made to appear to the satisfaction of the President (who shall thereupon by proclamation make known the fact) that the aggregate quantity of such plates lighter than sixty-three pounds per hundred square feet produced in the United States during either of the six years next preceding June thirtieth, eighteen hundred and ninety-seven, has equalled one-third the amount of such plates imported and entered for consumption during any fiscal year after the passage of this act, and prior to said October first,

eighteen hundred and ninety-seven: *Provided*, That, the amount of such plates manufactured into articles exported, and upon which a drawback shall be paid, shall not be included in ascertaining the amount of such importations: *And provided further*, That the amount or weight of sheet iron or sheet steel manufactured in the United States and applied or wrought in the manufacture of articles or wares tinned or terne-plated in the United States, with weight allowance as sold to manufacturers or others, shall be considered as tin and terne plates produced in the United States within the meaning of this act. [Old law: *And provided*, That on all such iron and steel sheets or plates aforesaid, excepting on what are known commercially as tin plates, terne plates, and taggers tin, and hereafter provided for, when galvanized or coated with zinc or spelter, or other metals, or any alloy of those metals, three-fourths of one cent per pound additional. Iron or steel sheets, or plates, or taggers iron, coated with tin or lead, or with a mixture of which these metals is a component part, by the dipping or any other process, and commercially known as tin plates, terne plates, and taggers tin, one cent per pound; corrugated or crimped sheet-iron or steel, one and four-tenths of one cent per pound. Manufacturers of tin, forty-five per centum.]

144. Sheet-iron or sheet-steel polished, planished or glanced, by whatever name designated, two and one-half cents per pound: *Provided*, That plate or sheet or taggers iron *or steel*, by whatever name designated, other than the polished, planished or glanced, herein provided for, which has been pickled or cleaned by acid, or by any other material or process, *or* which is cold-rolled, smoothed only, not polished, shall pay one-quarter of one cent per pound more duty than the corresponding gauges of common or black sheet or taggers iron or steel. [Old law: The words in italics in this paragraph are new matter.]

145. Sheets or plates of iron or steel, or taggers iron or steel, coated with tin or lead, or with a mixture of which these metals, or either of them, is a component part, by the dipping or any other process, and commercially known as tin plates, terne plates, and taggers tin, one cent per pound until July first, eighteen hundred and ninety-[illegible].

146. Steel ingots, cogged ingots, blooms, and slabs, by whatever process made; die blocks or blanks; billets and bars and tapered or beveled bars; steamer, crank, and other shafts; *shafting;* wrist or crank pins; connecting-rods and piston-rods; pressed, sheared or stamped shapes; saw-plates, wholly or partially manufactured; hammer-molds or swaged steel; gun-barrel molds not in bars; alloys used as substitutes for steel tools; all descriptions and shapes of dry sand, loam, or iron-molded steel castings; sheets and plates not specially provided for in this act; and steel in all forms and shapes not specially provided for in this act; all of the above valued at one cent per pound or less, four-tenths of one cent per pound; valued above one cent and not above one and four-tenths cents per pound, five-tenths of one cent per pound; valued above one and four-tenths cents and not above one and eight-tenths cents per pound, eight-tenths of one cent per pound; valued above one and eight-tenths cents and not above two and two-tenths cents per pound, nine-tenths of one cent per pound; valued above two and two-tenths cents, and not above three cents per pound, one and two-tenths cents per pound; valued above three cents and not above four cents per pound, one and six-tenths cents per pound; valued above four cents and not above seven cents per pound, two cents per pound; valued above seven cents and not above ten cents per pound, two and eight-tenths cents per pound; valued above ten cents and not above thirteen cents per pound, three and one-half cents per pound; valued above thirteen cents and not above sixteen cents per pound, four and two-tenths cents per pound; valued above sixteen cents per pound, seven cents per pound. [Old law: Steel ingots, cogged ingots, blooms, and slabs, by whatever process made; die blocks or blanks; billets and bars and tapered or beveled bars; bands, hoops, strips, and sheets of all gauges and widths; plates of all thicknesses and widths; steamer, crank, and other shafts; wrist or crank pins; connecting-rods and piston-rods; pressed, sheared, or stamped shapes, or blanks of sheet or plate steel, or combination of steel and iron, punched or not punched; hammer-molds or swaged steel; gun-molds, not in bars; alloys used as substitutes for steel tools; all descriptions and shapes of dry sand, loam, or iron-molded steel castings, all of the above classes of steel not otherwise specially provided for in this act valued at four cents a pound or less, forty-five per centum ad valorem; above four cents a pound and not above seven cents per pound, two cents per pound; valued above seven cents and not above ten cents per pound, two and three-fourths cents per pound; valued at above ten cents per pound, three and one-fourth cents per pound.]

WIRE.

147. Wire rods: Rivet, screw, fence and other iron or steel wire rods, and nail rods whether round, oval, flat, square, or in any other shape, in coils or otherwise, not smaller than number six wire gauge, valued at three and one-half cents or less per pound, six-tenths of one cent per pound; and iron or steel, flat, with longitudinal ribs for the manufacture of fencing, valued at three cents or less per pound, six-tenths of one cent per pound: *Provided*, That all iron or steel rods, whether rolled or drawn through dies, smaller than number six wire gauge, shall be classed and dutiable as wire. [Old law: Iron or steel rivet, screw, nail, and fence, wire rods, round, in coils and loops, not lighter than number five wire gauge, valued at three and one-half cents or less per pound, six-tenths of one cent per pound. Iron or steel, flat, with longitudinal ribs for the manufacture of fencing, six-tenths of a cent per pound.]

148. Wire: Wire made of iron or steel, not smaller than number ten wire gauge, one and one-fourth cents per pound; smaller than number ten, and not smaller than number sixteen wire guage, one and three-fourths cents per pound; smaller than number sixteen and not smaller than number twenty-six wire gauge, two and one-fourth cents per pound; smaller than number twenty-six wire gauge, three cents per pound: *Provided*, That iron or steel wire covered with cotten, silk or other material, and wires or strip steel, commonly known as crinoline-wire, corset-wire and hat-wire, shall pay a duty of five cents per pound: *And provided further*, That flat steel wire or sheet steel in strips, whether drawn through dies or rolls, untempered or tempered, of whatsoever width, twenty-five one thousandths of an inch thick or thinner (ready for use or otherwise), shall pay a duty of fifty per centum ad valorem: *And provided further*, That no article made from iron or steel wire, or of which iron or steel wire is a component part of chief value, shall pay a less rate of duty than the iron or steel wire from which it is made either wholly or in part: *And provided further*, That iron or steel wire-cloths, and iron or steel wire-nettings made in meshes of any form, shall pay a duty equal in amount to that imposed on iron or steel wire used in the manufacture of iron or steel wire cloth, or iron or steel wire nettings, and two cents per pound in addition thereto. [Old law: Smaller than number ten gauge, one and one-half and two cents per pound; number ten to number sixteen gauge, two cents; number sixteen to number twenty-six gauge, two and one-half cents; smaller, three cents. *Provided*, That iron or steel wire covered with cotton, silk, or other material, and wire commonly known as crinoline, corset and hat-wire, shall pay four cents per pound in addition to the foregoing rates: *And provided further*, That no article made from iron or steel wire, or of which iron or steel wire is a component part of chief value, shall pay a less rate of duty than the iron or steel wire from which it is made, either wholly or in part: *And provided further*, That iron or steel wire-cloths, and iron or steel wire-nettings, made in meshes of any form, shall pay a duty equal in amount to that imposed on iron or steel wire of the same gauge, and two cents per pound in addition thereto. There shall be paid on galvanized iron or steel wire (except fence wire) one-half of one cent per pound in addition to the rate imposed on the wire of which it is made. On iron wire-rope and wire-strand, one cent per pound in addition to the rates imposed on the wire of which it is made. On steel wire-rope and wire-strand, two cents per pound in addition to the rates imposed on the wire of which it is made.]

There shall be paid on iron or steel wire coated with zinc or tin, or any other metal (except fence-wire and iron or steel, flat, with longitudinal ribs, for the manufacture of fencing), one-half of one cent per pound in addition to the rate imposed on the wire of which it is made; on iron wire-rope and wire-strand, one cent per pound in addition to the rate imposed on the wire of which it is made; on steel wire-rope and wire-strand, two cents per pound in addition to the rate imposed on the wire of which they or either of them are made: *Provided further*, That all iron or steel wire valued at more than four cents per pound shall pay a duty of not less than forty-five per centum ad valorem except that card-wire for the manufacture of card clothing shall pay a duty of thirty-five per centum ad valorem.

General Provisions.

149. No allowance or reduction of duties for partial loss or damage in consequence of rust or of discoloration shall be made upon any description of iron or steel, or upon any article *wholly or* partly manufactured of iron or steel, or upon any manufacture of iron and steel.

150 All metal produced from iron or its ores, which is cast and malleable, of whatever description or form, without regard to the percentage of carbon contained therein whether produced by cementation, or converted, cast or made from iron or its ores, by the crucible, Bessemer, Clapp-Griffiths, pneumatic, Thomas-Gilchrist, basic, Siemens-Martin, or open-hearth process, or by the equivalent of either, or by a combination of two or more of the processes, or their equivalents, or by any fusion or other process which produces from iron or its ores a metal either granular or fibrous in structure, which is cast and malleable, excepting what is known as malleable-iron castings, shall be classed and denominated as steel.

151. No article not specially provided for in this act, wholly or partly manufactured from tin plate, terne plate, or the sheet, plate, hoop, band or scroll iron or steel herein provided for, or of which such tin plate, terne plate, sheet, plate, hoop, band or scroll iron or steel shall be the material of chief value, shall pay a lower rate of duty than that imposed on the tin plate, terne plate, or sheet, plate, hoop, band, or scroll iron or steel from which it is made, or of which it shall be the component thereof of chief value. [Not in old law.]

152. On all iron or steel bars or rods *of whatever shape or section, which are* cold rolled, cold hammered, or polished in any way in addition to the ordinary process of hot rolling or hammering, there shall be paid one-fourth of one cent per pound in addition to the rates provided in this act; *and on all strips, plates or sheets of iron or steel of whatever shape, other than the polished, planished or glanced sheet-iron or sheet-steel hereinbefore provided for, which are cold rolled, cold hammered, blued, brightened, tempered or polished by any process to such perfected surface finish, or polish better than the grade of cold rolled, smooth only, hereinbefore provided for, there shall be paid one and one-fourth cents per pound in addition to the rates provided in this act upon plates, strips, or sheets of iron or steel of common or black finish;* and on steel circular saw plates there shall be paid one cent per pound in addition to the rate provided in this act for steel saw plates.

Manufactures of Iron and Steel.

153. Anchors or parts thereof of iron or steel, mill-irons and mill-cranks of wrought-iron and wrought-iron for ships, and forgings of iron or steel, *or of combined iron and steel*, for vessels, steam-engines and locomotives, or parts thereof, weighing each twenty-five pounds or more, one and eight-tenths cents per pound. [Old law: Two cents per pound.]

154. Axles, or parts thereof, axle-bars, axle-blanks, or forgings for axles, whether of iron or steel, without reference to the stage or state of manufacture, two cents per pound; *Provided, That when iron or steel axles are imported fitted in wheels, or parts of wheels, of iron or steel, they shall be dutiable at the same rate as the wheels in which they are fitted.* [Old law: Two and a half cents per pound.]

155. Anvils of iron or steel, or of iron and steel combined, by whatever process made, or in whatever stage of manufacture, two and one-half cents per pound. [New language. No change in rate.]

156. Blacksmiths' hammers and sledges, track tools, wedges and crowbars, whether of iron or steel, two and one-fourth cents per pound. [Old law: Two and one-half cents per pound.]

157. Boiler or other tubes, pipes, flues, or stays of wrought iron or steel, two and one-half cents per pound. [Old law: Two and one-fourth and three cents per pound.]

158. Bolts, with or without threads or nuts, or bolt-blanks, and finished hinges or hinge blanks, whether of iron or steel, two and one-fourth cents per pound. [Old law: Two and one-half cents per pound.]

159. Card-clothing, manufactured from tempered steel wire, fifty cents per square foot; all other, twenty-five cents per square foot. [Old law: Forty-five per centum and twenty-five per centum.]

160. Cast-iron pipe of every description, nine-tenths of one cent per pound. [Old law: One cent per pound.]

161. Cast-iron vessels, plates, stove-plates, andirons, sad-irons, tailors' irons, hatters' irons, and castings of iron, not specially provided for in this act, one and two-tenths cents per pound. [Old law: One and one-fourth cents per pound.]

162. Castings of malleable iron not specially provided for in this act, one and three-fourth cents per pound. [Old law: Two cents per pound.]

163. Cast hollow-ware, coated, glazed, or tinned, three cents per pound. [Old law: All hollow-ware, coated, glazed, or tinned, three cents per pound.]

164. Chain or chains of all kinds, made of iron or steel, not less than three-fourths of one inch in diameter, one and six-tenths cents per pound; less than three fourths of one inch and not less than three-eighths of one inch in diameter, one and eight-tenths cents per pound; less than three-eighths of one inch in diameter, two and one-half cents per pound, but no chain or chains of any description shall pay a lower rate of duty than forty-five per centum ad valorem. [Old law: One and three-fourths cents per pound; two cents per pound; two and one-half cents per pound.]

CUTLERY.

165. Pen-knives or pocket-knives of all kinds, or parts thereof, and erasers, or parts thereof, wholly or partly manufactured, valued at not more than fifty cents per dozen, twelve cents per dozen; valued at more than fifty cents per dozen and not exceeding one dollar and fifty cents per dozen, fifty cents per dozen; valued at more than one dollar and fifty cents per dozen and not exceeding three dollars per dozen, one dollar per dozen; valued at more than three dollars per dozen, two dollars per dozen; and in addition thereto on all the above, fifty per centum ad valorem. Razors and razor blades, finished or unfinished, valued at less than four dollars per dozen, one dollar per dozen; valued at four dollars or more per dozen, one dollar and seventy-five cents per dozen; and in addition thereto on all the above razors and razor-blades, thirty per centum ad valorem. [Old law: Pen-knives, pocket-knives of all kinds, and razors, fifty per centum; cutlery not specially provided for, thirty-five per centum.]

166. Swords, sword-blades, and side-arms, thirty-five per centum ad valorem.

167 Table-knives, forks, steels, and all butchers', hunting, kitchen, bread, butter, vegetable, fruit, cheese, plumbers', painters', palette, and artists' knives of all sizes, finished or unfinished, valued at not more than one dollar per dozen pieces, ten cents per dozen valued at more than one dollar and not more than two dollars, thirty-five cents per dozen; valued at more than two dollars and not more three dollars, forty cents per dozen; valued at more than three dollars and not more than eight dollars, one dollar per dozen, valued at more than eight dollars, two dollars per dozen; and in addition upon all the above named articles, thirty per centum ad valorem. All carving and cooks' knives and forks of all sizes, finished or unfinished, valued at not more than four dollars per dozen pieces, one dollar per dozen; valued at more than four dollars and not more than eight dollars, two dollars per dozen pieces; valued at more than eight dollars and not more twelve dollars, three dollars per dozen pieces, valued at more than twelve dollars, five dollars per dozen pieces; and in addition upon all the above named articles, thirty per centum ad valorem. [Old law: Cutlery not specially provided for, thirty-five per centum.]

168. Files, file-blanks, rasps and floats of all cuts and kinds, four inches in length and under, thirty-five cents per dozen; over four inches in length and under nine inches, seventy-five cents per dozen; nine inches in length and under fourteen inches, one dollar and thirty cents per dozen; fourteen inches in length and over, two dollars per dozen. [Old law: Nine inches and under four inches, one dollar and fifty cents per dozen; fourteen inches and over, two dollars and fifty cents per dozen.]

FIRE-ARMS.

169. Muskets and sporting rifles, twenty-five per centum ad valorem. [Old law: Muskets, rifles, and other fire-arms, not specially provided for, twenty-five per centum.]

170. All double-barreled, sporting, breech-loading shot-guns valued at not more than six dollars each, one dollar and fifty cents each; valued at more than six dollars and not more than twelve dollars each, four dollars each; valued at more than twelve dollars each, six dollars each, and in addition thereto on all the above, thirty-five per centum ad valorem. Single-barrel, breech-loading shot-guns, one dollar each and thirty-five per centum ad valorem. Revolving pistols valued at not more than one dollar and fifty cents each, forty cents each; valued at more than one dollar and fifty cents, one dollar each; and in addition thereto on all the above pistols, thirty-five per centum ad valorem. [Old law: Thirty-five per centum.]

171. Iron or steel sheets, plates, wares, or articles, enameled or glazed with vitreous glasses, forty-five per centum ad valorem. [NOTE—Not in old law. Rates various.]

172. Iron or steel sheets, plates, wares, or articles, enameled or glazed as above with more than one color, or ornamented, fifty per centum ad valorem. [Not in old law. Rates various.]

NAILS, SPIKES, TACKS AND NEEDLES.

173. Cut nails and cut spikes of iron or steel, one cent per pound. [Old law: One and one-fourth cents per pound.]

174. Horseshoe nails, hob nails, and all other wrought iron or steel nails not specially provided for in this act, four cents per pound.

175. Wire nails made of wrought iron or steel, two inches long and longer, not lighter than number twelve wire gauge, two cents per pound; from one inch to two inches in length, and lighter than number twelve and not lighter than number sixteen wire gauge, two and one half cents per pound; shorter than one inch and lighter than number sixteen wire gauge, four cents per pound. [Old law: Four cents per pound.]

176. Spikes, nuts and washers, and horse, mule, or ox shoes, of wrought iron or steel, one and eight-tenths cents per pound. [Old law: Two cents per pound.]

177. Cut tacks, brads, or sprigs, not exceeding sixteen ounces to the thousand, two and one-fourth cents per thousand, exceeding sixteen ounces to the thousand, two and three-fourths cents per pound. [Old law: Two and one-half cents per pound; three cents per pound.]

178. Needles for knitting or sewing machines, crochet-needles, and tape-needles and bodkins of metal, thirty-five per centum ad valorem. [Old law: Twenty-five per centum and thirty-five per centum.]

179. Needles, knitting, and all others not specially provided for in this act, twenty-five per centum ad valorem.

PLATES.

180. Steel plates engraved, stereotype plates, *electrotype plates, and plates of other materials, engraved or lithographed, for printing*, twenty-five per centum ad valorem.

181 Railway fish plates or splice-bars made of iron or steel, one cent per pound. [Old law: One and one fourth cents per pound.]

182. Rivets of iron or steel, two and one-half cents per pound.

183 Saws Cross-cut saws, eight cents per linear foot; mill, pit, and drag-saws, not over nine inches wide, ten cents per linear foot; over nine inches wide, fifteen cents per linear foot, circular saws, thirty per centum ad valorem; hand, back and all other saws, not especially provided for in this act, forty per centum ad valorem.

184. Screws, commonly called wood-screws, more than two inches in length, five cents per pound; over one inch and not more than two inches in length, seven cents per pound, over one-half inch and not more than one inch in length, ten cents per pound, one-half inch and less in length, fourteen cents per pound. [Old law: Six cents per pound; eight cents per pound, ten cents per pound; fourteen cents per pound, respectively.]

185. Wheels, or parts thereof, made of iron or steel, and steel-tired wheels for railway purposes, whether wholly or partly finished, and iron or steel locomotive, car, or other railway tires or parts thereof, wholly or partly manufactured, two and one-half cents per pound, and ingots, cogged ingots, blooms, or blanks for the same, without regard to the degree of manufacture, one and three-fourths cents per pound *Provided*, That when wheels or parts thereof, of iron or steel, are imported with iron or steel axles fitted in them, the wheels and axles together shall be dutiable at the same rate as is provided for the wheels when imported separately [Old law: Steel wheels and steel-tired wheels for railway purposes, whether wholly or partly finished, and iron or steel locomotive, car, and other railway tires, or parts thereof, wholly or partly manufactured, two and one-half of one cent per pound; iron or steel ingots, cogged ingots, blooms, or blanks for the same, without regard to the degree of manufacture, two cents per pound.]

Miscellaneous Metals and Manufactures of.

186. Aluminium or aluminum, in crude form, and alloys of any kind in which aluminum is the component material of chief value, fifteen cents per pound. [Old law: Free.]

187 Antimony, as regulus or metal, three-fourths of one cent per pound.

188 Argentine, albata, or German silver, unmanufactured, twenty-five per centum ad valorem.

189 Brass, in bars or pigs, old brass, clippings from brass or Dutch metal, *and old sheathing, or yellow metal* fit only for remanufacture, one and one half cents per pound

190 Bronze powder, twelve cents per pound: bronze or Dutch-metal, or aluminum, in leaf, eight cents per package of one hundred leaves [Old law Bronze Dutch-metal in leaf, ten per centum; bronze powder, fifteen per centum.]

COPPER.

191. Copper imported in the form of ores, one-half of one cent per pound on each pound of fine copper contained therein. [Old law: Two and one-half cents per pound.]

192. Old copper, fit only for remanufacture, clippings from new copper, and all composition metal of which copper is a component material of chief value, not specially provided for in this act, one cent per pound [Old law: Three cents per pound.]

193. Regulus of copper and black or coarse copper, and copper cement, one cent per pound on each pound of fine copper contained therein. [Old law: Three and one-half cents per pound.]

194. Copper in plates, bars, ingots, Chili or others pigs, and in other forms not manufactured, not specially provided for in this act, one and one-fourth cents per pound. [Old law: Four cents per pound.]

195. Copper in rolled plates, called braziers' copper, sheets, rods, pipes, and copper bottoms, also sheathing or yellow metal of which copper is the component material of chief value, and not composed wholly or in part of iron ungalvanized, thirty-five per centum ad valorem. [In old law, and omitted: Sheathing, or yellow metal, not wholly of copper, nor wholly nor in part of iron, ungalvanized, in sheets, forty-eight inches long and fourteen inches wide, and weighing from fourteen to thirty-four ounces per square foot thirty-five per centum ad valorem; copper, when imported for the United States Mint, free.]

GOLD AND SILVER.

196. Bullions and metal thread of gold, silver, or other metals not specially provided for in this act, thirty per centum ad valorem. [Old law: Twenty-five per centum.]

197. Gold-leaf, two dollars per package of five hundred leaves. [Old law: One dollar and fifty cents per package.]

198. Silver leaf, seventy-five cents per package of five hundred leaves. [Old law: Seventy-five cents per package.]

LEAD.

199. Lead ore and lead dross, one and one-half cents per pound: *Provided, That silver ore and all other ores containing lead shall pay a duty of one and one-half cents per pound on the lead contained therein, according to sample and assay at the port of entry.*

200. Lead in pigs and bars, molten and old refuse lead run into blocks and bars, and old scrap lead fit only to be remanufactured, two cents per pound.

201. Lead in sheets, pipe, shot, *glaziers' lead and lead wire*, two and one-half cents per pound. [Old law: Three cents per pound.]

202. *Metallic* mineral substances in a crude state and metals unwrought, not specially provided for in this act, twenty per centum ad valorem; mica, thirty-five per centum ad valorem. [Words in italics new matter; old law: Mica and mica waste free.]

NICKEL.

203. Nickel, nickel oxide, alloy of any kind of which nickel is the component material of chief value, ten cents per pound. [Old law: fifteen cents per pound.]

204. Pens, metallic, *except gold pens*, twelve cents per gross.

205. Pen-holder tips, pen-holders, or parts thereof, *and gold pens*, thirty per centum ad valorem.

206. Pins, metallic, solid-head or other, *including hair-pins, safety-pins, and hat, bonnet, shawl and belt pins*, thirty per centum ad valorem. [Pins now are classified at various rates.]

207 Quicksilver, ten cents per pound. *The flasks, bottles, or other vessels in which quicksilver is imported shall be subject to the same rate of duty as they would be subject to if imported empty.* [Old law: Ten per centum.]

208. Type-metal, one and one-half cents per pound *for the lead contained therein:* new types, twenty-five per centum ad valorem. [Old law: Type metal, twenty per centum.]

209. Tin: On and after July first, eighteen hundred and ninety-three, there shall be imposed and paid upon cassiterite or black oxide of tin, and upon bar, block, and pig tin, a duty of four cents per pound: *Provided*, That unless it shall be made to appear to the satisfaction of the President of the United States (who shall make known the fact by proclamation) that the product of the mines of the United States shall have exceeded five thousand tons of cassiterite, and bar, block, and pig tin in any one year prior to July first, eighteen hundred and ninety-five, then all imported cassiterite, bar, block, and pig tin shall after July first, eighteen hundred and ninety-five, be admitted free of duty. [Old law: Free.]

WATCHES.

210. Chronometer, box or ship's, and parts thereof, ten per centum ad valorem.

211. Watches, parts of watches, watch-cases, watch movements, *and watch-glasses, whether separately packed or otherwise*, twenty-five per centum ad valorem. [Old law: Watch materials also twenty-five per centum.]

ZINC OR SPELTER.

212. Zinc in blocks or pigs, one and three-fourths cents per pound. [Old law: One and one-half cents per pound.]

213. Zinc in sheets, two and one-half cents per pound. [Old law contains the words "spelter or tutenegue."]

214. Zinc, old and worn out, fit only to be remanufactured, one and one-fourth cents per pound. [Old law: One and one-half cents per pound.]

215. Manufactures, articles, or wares, not specially enumerated or provided for in this act, composed wholly or in part of iron, steel, lead, copper, nickel, pewter, zinc, gold, silver, platinum, *aluminum*, or any other metal, and whether partly or wholly manufactured, forty-five per centum ad valorem. [Old law: Epaulets, galloons, laces, knots, stars, tassels, and wings of gold, silver or other metal, twenty-five per centum. Umbrella and parasol ribs, and stretcher-frames, tips, runners, handles, or other parts thereof, when made in whole or chief parts of iron, steel, or any other metal, forty per centum ad valorem; Brittania ware, and plated and gilt articles and wares of all kinds, thirty-five per centum.

Schedule D.--Wood and Manufactures of.

216. Timber, hewn and sawed, and timber used for spars and in building wharves, ten per centum ad valorem. [Old law: Twenty per centum.]

217. Timber, squared or sided, not specially provided for in this act, one-half of one cent per cubic foot. [Old law: One cent per cubic foot.]

218. Sawed boards, planks, deals and other lumber of hemlock, white wood, sycamore, white pine and basswood, one dollar per thousand feet board measure; sawed lumber, not specially provided for in this act, two dollars per thousand feet board measure; but when lumber of any sort is planed or finished, in addition to the rates herein provided, there shall be levied and paid for each side so planed or finished fifty cents per thousand feet board measure; and if planed on one side, and tongued and grooved, one dollar per thousand feet board measure; and if planed on two sides, and tongued and grooved, one dollar and fifty cents per thousand feet board measure; *and in estimating board measure under this schedule no deduction shall be made on board measure on account of planing, tonguing and grooving: Provided, That in case any foreign country shall impose an export duty upon pine, spruce, elm or other logs, or upon stave-bolts, shingle wood or heading blocks exported to the United States from such country, then the duty upon sawed lumber herein provided for, when imported from such country, shall remain the same as fixed by the law in force prior to the passage of this act.* [Old law: White pine two dollars per thousand feet.]

219. Cedar: That on and after March first, eighteen hundred and ninety-one, paving posts, railroad ties, and telephone and telegraph poles of cedar, shall be dutiable at twenty per centum ad valorem. [Old law: Free.]

220. Sawed boards, plank, deals, and all forms of sawed cedar, lignum-vitæ, lancewood, ebony, box, granadilla, mahogany, rosewood, satinwood, and all other cabinet-woods not further manufactured than sawed, fifteen per centum ad valorem; veneers of wood, and wood unmanufactured, not specially provided for in this act, twenty per centum ad valorem. [Old law: Two dollars per thousand feet; veneers, thirty-five per centum; canes and sticks for walking, if unfinished, twenty per centum.]

221. Pine clapboards, one dollar per one thousand. [Old law: Two dollars per one thousand.]

222. Spruce clapboards, one dollar and fifty cents per one thousand.]

223. Hubs for wheels, posts, last-blocks, wagon-blocks, oar-blocks, gun-blocks, heading-blocks, and all like blocks or sticks, rough-hewn or sawed only, twenty per centum ad valorem.

224. Laths, fifteen cents per one thousand pieces.

225. Pickets and palings, ten per centum ad valorem. [Old law: Twenty per centum.]

226. White pine shingles, twenty cents per one thousand; all other, thirty cents per one thousand. [Old law: Thirty-five cents per one thousand.]

227. Staves of wood of all kinds, ten per centum ad valorem.

228. Casks and barrels (empty), sugar-box shooks, and packing-boxes, and packing-box shooks of wood, not specially provided for in this act, thirty per centum ad valorem.

229. Chair cane, or reeds wrought or manufactured from rattans or reeds, and whether round, square, or in any other shape, ten per centum ad valorem. [Old law: Rattans and reeds, manufactured, but not made up into completed articles, ten per centum ad valorem.]

230. House or cabinet furniture of wood, wholly or partly finished, manufactures of wood, or of which wood is the component material of chief value, not specially provided for in this act, thirty-five per centum ad valorem. [Old law: House or cabinet furniture, in piece[s] or rough, and not finished, thirty per centum ad valorem. Cabinet ware[s] and house furniture, finished, thirty-five per centum ad valorem. Manufactures of cedar wood, granadilla, ebony, mahogany, rosewood, and satinwood, thirty-five per centum ad valorem. Manufactures of wood, or of which wood is the chief component part, not specially enumerated or provided for in this act, thirty-five per centum ad valorem. Canes and sticks for walking, finished, thirty-five per centum.

Schedule E.—Sugar.

231. That on and after July first, eighteen hundred and ninety-one, and until July first, nineteen hundred and five, there shall be paid, from any moneys in the Treasury not otherwise appropriated, under the provisions of section three thousand six hundred and eighty-nine of the Revised Statutes, to the producer of sugar testing not less than ninety degrees by the polariscope, from beets, sorghum, or sugar-cane grown within the United States, or from maple sap produced within the United States, a bounty of two cents per pound; and upon such sugar testing less than ninety degrees by the polariscope, and not less than eighty degrees, a bounty of one and three-fourths cents per pound, under such rules and regulations as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, shall prescribe.

232. The producer of said sugar to be entitled to said bounty shall have first filed prior to July first of each year with the Commissioner of Internal Revenue a notice of the place of production, with a general description of the machinery and methods to be employed by him, with an estimate of the amount of sugar proposed to be produced in the current or next ensuing year, including the number of maple trees to be tapped, and an application for a license to so produce, to be accompanied by a bond in a penalty, and with sureties to be approved by the Commissioner of Internal Revenue, conditioned that he will faithfully observe all rules and regulations that shall be prescribed for such manufacture and production of sugar.

233. The Commissioner of Internal Revenue, upon receiving the application and bond herein-before provided for, shall issue to the applicant a license to produce sugar from sorghum, beets, or sugar-cane grown within the United States, or from maple sap produced within the United States at the place and with the machinery and by the

methods described in the application, but said license shall not extend beyond one year from the date thereof.

234. No bounty shall be paid to any person engaged in refining sugars which have been imported into the United States or produced in the United States, upon which the bounty herein provided for has already been paid or applied for, nor to any person unless he shall have first been licensed as herein provided, and only upon sugar produced by such person from sorghum, beets, or sugar-cane grown within the United States, or from maple sap produced within the United States. The Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, shall from time to time make all needful rules and regulations for the manufacture of sugar from sorghum, beets, or sugar-cane grown within the United States, or from maple sap produced within the United States, and shall, under the direction of the Secretary of the Treasury, exercise supervision and inspection of the manufacture thereof.

235. And for the payment of these bounties the Secretary of the Treasury is authorized to draw warrants on the Treasurer of the United States for such sums as shall be necessary, which sum shall be certified to him by the Commissioner of Internal Revenue, by whom the bounties shall be disbursed, and no bounty shall be allowed or paid to any person licensed as aforesaid in any one year upon any quantity of sugar less than five hundred pounds.

236. That any person who shall knowingly refine or aid in the refining of sugar imported into the United States or upon which the bounty herein provided for has already been paid or applied for, at the place described in the license issued by the Commissioner of Internal Revenue, and any person not entitled to the bounty herein provided for, who shall apply for or receive the same, shall be guilty of a misdemeanor, and, upon conviction thereof, shall pay a fine not exceeding five thousand dollars, or be imprisoned for a period not exceeding five years, or both, in the discretion of the court. [NOTE.—All the foregoing of this schedule is new legislation.]

237. All sugars above number sixteen Dutch standard in color shall pay a duty of five-tenths of one cent per pound: *Provided*, That all such sugars above sixteen Dutch standard in color shall pay one-tenth of one cent per pound in addition to the rate herein provided for, when exported from or the product of any country when and so long as such country pays, or shall hereafter pay, directly or indirectly, a bounty on the exportation of any sugar that may be included in this grade which is greater than is paid on raw sugars of a lower saccharine strength; and the Secretary of the Treasury shall prescribe suitable rules and regulations to carry this provision into effect: *And provided further*, That all machinery purchased abroad and erected in a beet-sugar factory and used in the production of raw sugar in the United States from beets produced therein shall be admitted duty free until the first day of July, eighteen hundred and ninety-two: *Provided*, That any duty collected on any of the above described machinery, purchased abroad and imported into the United States for the uses above indicated since January first, eighteen hundred and ninety, shall be refunded. [Old law: sixteen to twenty Dutch standard, three cents per pound; above twenty, three and fifty-one hundredths cents per pound. Beet sugar machinery dutiable at forty five per centum.]

238. Sugar candy and all confectionery, including chocolate confectionery, made wholly or in part of sugar, valued at twelve cents or less per pound, and on sugars after being refined, when tinctured, colored, or in any way adulterated, five cents per pound.

239. All other confectionery, including chocolate confectionery, not specially provided for in this act, fifty per centum ad valorem. [Old law for paragraphs 238 and 239: Sugar candy, not colored, five cents per pound. All other confectionery, not specially enumerated or provided for in this act, made wholly or in part of sugar, and of sugars after being refined, when tinctured, colored, or in any way adulterated valued at thirty cents per pound or less, ten cents per pound. Confectionery valued above thirty cents per pound, or when sold by the box, package, or otherwise than by the pound, fifty per centum ad valorem.]

240. Glucose or grape sugar, three-fourths of one cent per pound. [Old law: Glucose, twenty-per centum.]

241. That the provisions of this act providing terms for the admission of imported sugars and molasses and for the payment of a bounty on sugars of domestic production shall take effect on the first day of April, eighteen hundred and ninety-one: *Provided*, That on and after the first day of March, eighteen hundred and ninety-one, and prior to the first day of April, eighteen hundred and ninety-one, sugars not exceeding number sixteen Dutch standard in color may be refined in bond without payment of duty, and such refined sugars may be transported in bond and stored in bonded warehouse at such points of destination as are provided in existing laws relating to the immediate transportation of dutiable goods in bond, under such rules and regulations as shall be prescribed by the Secretary of the Treasury. [NOTE—All new matter.]

Schedule F.—Tobacco and Manufactures of.

242. Leaf tobacco suitable for cigar-wrappers, if not stemmed, two dollars per pound; if stemmed, two dollars and seventy-five cents per pound: *Provided*, That if any portion of any tobacco imported in any bale, box, or package, or in bulk shall be suitable for cigar-wrappers, the entire quantity of tobacco contained in such bale, box or package, or bulk, shall be dutiable, if not stemmed, at two dollars per pound; if stemmed, at two dollars and seventy-five cents per pound. [Old law: Leaf tobacco, of which eighty-five per centum is of the requisite size and of the necessary fineness of texture to be suitable for wrappers, and of which more than one hundred leaves are required to weigh a pound, if not stemmed, seventy-five cents per pound; if stemmed, one dollar per pound.]

243. All other tobacco in leaf, unmanufactured and not stemmed, thirty-five cents per pound; if stemmed, fifty cents per pound. [Old law: Stemmed, forty cents per pound.]

244. Tobacco, manufactured, of all descriptions, not specially enumerated or provided for in this act, forty cents per pound.

245. Snuff and snuff flour, manufactured of tobacco, ground dry, or damp, and pickled, scented, or otherwise, of all descriptions, fifty cents per pound.

246. Cigars, cigarettes, and cheroots of all kinds, four dollars and fifty cents per pound and twenty-five per centum ad valorem; and paper cigars and cigarettes, including wrappers, shall be subject to the same duties as are herein imposed upon cigars. [Old law: Two dollars and fifty cents per pound and twenty-five per centum.]

Schedule G.—Agricultural Products and Provisions.

ANIMALS, LIVE.

247. Horses and mules, thirty dollars per head: *Provided*, That horses valued at one hundred and fifty dollars and over shall pay a duty of thirty per centum ad valorem.

248. Cattle, more than one year old, ten dollars per head; one year old or less, two dollars per head.

249. Hogs, one dollar and fifty cents per head.

250. Sheep, one year old or more, one dollar and fifty cents per head; less than one year old, seventy-five cents per head.

251. All other live animals, not specially provided for in this act, twenty per centum ad valorem [Old law, covering paragraphs 235 to 239: Animals, live, twenty per centum.]

BREADSTUFFS AND FARINACEOUS SUBSTANCES.

252. Barley, thirty cents per bushel of forty-eight pounds. [Old law: Ten cents per bushel.]

253. Barley-malt, forty-five cents per bushel of thirty-four pounds. [Old law: Twenty cents per bushel.]

254. Barley, pearled, patent or hulled, two cents per pound. [Old law: One-half cent per pound.]

255. Buckwheat, fifteen cents per bushel of forty-eight pounds. [Old law: Unenumerated, ten per centum.]

256. Corn or maize, fifteen cents per bushel of fifty-six pounds. [Old law: Ten cents per bushel.]

257. Corn-meal, twenty cents per bushel of forty-eight pounds. [Old law: Ten cents per bushel.]

258. Macaroni, vermicelli, and all similar preparations, two cents per pound. [Old law: Free.]

259. Oats, fifteen cents per bushel. [Old law: Ten cents per bushel.]

260. Oatmeal, one cent per pound. [Old law: One-half cent per pound.]

261. Rice, cleaned, two cents per pound; uncleaned rice, one and one-quarter cents per pound, paddy, three-quarters of one cent per pound; rice-flour, rice-meal and rice broken, which will pass through a sieve known commercially as number twelve wire sieve, one-fourth of one cent per pound. [Old law: Cleaned, two and one-quarter cents per pound; uncleaned, one and one-half cents per pound; paddy, one and one-quarter cents per pound; rice-flour, rice-meal, twenty per centum.]

262. Rye, ten cents per bushel.

263. Rye-flour, one-half of one cent per pound.

264. Wheat, twenty-five cents per bushel. [Old law: Twenty cents per bushel.]

265. Wheat-flour, twenty-five per centum ad valorem. [Old law: Twenty per centum.]

DAIRY PRODUCTS.

266. Butter, and substitutes therefor, six cents per pound. [Old law: Four cents per pound.]

267. Cheese, six cents per pound. [Old law: Four cents per pound.]

268. Milk, fresh, five cents per gallon. [Old law: Ten per centum (unenumerated).]

269. Milk, preserved or condensed, including weight of packages, three cents per pound, sugar of milk, eight cents per pound. [Old law: Milk, condensed, twenty per centum, milk, sugar of, free.]

FARM AND FIELD PRODUCTS.

270. Beans, forty cents per bushel of sixty pounds. [Old law: Unenumerated, ten per centum.]

271. Beans, peas, and mushrooms, prepared or preserved, in tins, jars, bottles or otherwise, forty per centum ad valorem. [Old law: Vegetables, prepared or preserved, of all kinds not otherwise provided for, thirty per centum.]

272. Broom-corn, eight dollars per ton. [Old law: Ten per centum (unenumerated).]

273. Cabbages, three cents each. [Old law: Ten per centum (unenumerated).]

274. Cider, five cents per gallon. [Old law: Twenty per centum (unenumerated).]

275. Eggs, five cents per dozen. [Old law: Free.]

276. Eggs, yelk of, twenty-five per centum ad valorem. [Old law: Unenumerated, twenty per centum.]

277. Hay, four dollars per ton. [Old law: Two dollars per ton.]

278. Honey, twenty cents per gallon.

279. Hops, fifteen cents per pound. [Old law: Eight cents per pound.]

280. Onions, forty cents per bushel. [Old law: Ten per centum (unenumerated).]

281. Peas, green, in bulk or in barrels, sacks, or similar packages, forty cents per bushel of sixty pounds; peas, dried, twenty cents per bushel; split peas, fifty cents per bushel of sixty pounds; peas in cartoons, papers, or other small packages, one cent per pound. [Old law: Vegetables in natural state, ten per centum; split peas, twenty per centum, for seed, twenty per centum.]

282. Plants, trees, shrubs and vines of all kinds, commonly known as nursery stock, not specially provided for in this act, twenty per centum ad valorem. [Old law: Plants, trees, shrubs and vines of all kinds, not otherwise provided for, and seeds of all kinds, except medicinal seeds not specially enumerated or provided for in this act, free.]

283. Potatoes, twenty-five cents per bushel of sixty pounds. [Old law: Fifteen cents per bushel.]

SEEDS.

284. Castor beans or seeds, fifty cents per bushel of fifty pounds.

285. Flaxseed or linseed, *poppy seed and other oil seeds, not specially provided for in this act*, thirty cents per bushel of fifty-six pounds; but no drawback shall be allowed on oil-cake made from imported seed. [Old law: Twenty cents per bushel.]

286. Garden seeds, agricultural seeds, and other seeds not specially provided for in this act, twenty per centum ad valorem. [Old law: Garden seeds, twenty per centum, and most other seeds free.]

287. Vegetables of all kinds, prepared or preserved, including pickles and sauces of all kinds, not specially provided for in this act, forty-five per centum ad valorem. [Old law: Vegetables of all kinds, thirty per centum; pickles and sauces, and so forth, thirty-five per centum; vegetables in salt or brine, ten per centum.]

288. Vegetables in their natural state, not specially provided for in this act, twenty-five per centum ad valorem. [Old law: Vegetables in their natural state or in salt or brine, ten per centum.]

289. Straw, thirty per centum ad valorem. [Old law: Unmanufactured free.]

290. Teazles, thirty per centum ad valorem. [Old law: Free.]

FISH.

291. Anchovies and sardines, packed in oil or otherwise, in tin boxes measuring not more than five inches long, four inches wide, and three and one-half inches deep, ten cents per whole box; in half-boxes, measuring not more than five inches long, four inches wide, and one and five-eighths inches deep, five cents each; in quarter boxes measuring not more than four and three-fourths inches long, three and one-half inches wide, and one and one-fourth inches deep, two and one-half cents each; when imported in any other form, forty per centum ad valorem.

292. Fish, pickled, in barrels or half barrels, and mackerel or salmon, pickled or salted, one cent per pound. [Old law: Mackerel, one cent per pound; salmon pickled, one cent per pound; other fish pickled or salted, one cent per pound.]

293. Fish, smoked, dried, salted, pickled, frozen, packed in ice, or otherwise prepared for preservation, and fresh fish, not specially provided for in this act, three-fourths of one cent per pound. [Old law: Foreign-caught fish imported otherwise than in barrels or half barrels, whether fresh, smoked, dried, salted, or pickled, not specially enumerated or provided for in this act, fifty cents per hundred pounds.]

294. Herrings, pickled or salted, one-half of one cent per pound; herrings, fresh, one-fourth of one cent per pound. [Old law: Herrings, fresh, fifty cents per hundred pounds.]

295. Fish in cans or packages made of tin or other material, except anchovies and sardines and fish packed in any other manner, not specially enumerated or provided for in this act, thirty per centum ad valorem. [Old law: Fish preserved in oil, except anchovies and sardines, thirty per centum. Old law: Salmon and all other fish prepared or preserved not otherwise provided for, twenty-five per centum.]

296. Cans or packages made of tin or other metal, containing shell fish admitted free of duty, not exceeding one quart in contents, shall be subject to a duty of eight cents per dozen cans or packages; and when exceeding one quart, shall be subject to an additional duty of four cents per dozen for each additional half quart or fractional part thereof: *Provided*, That until June thirtieth, eighteen hundred and ninety-one, such cans or packages shall be admitted as now provided by law. [Old law: Cans or packages made of tin or other material containing fish of any kind admitted free of duty under any existing law or treaty, not exceeding one quart in contents, shall be subject to a duty of one cent and a half on each can or package; and when exceeding one quart, shall be subject to an additional duty of one cent and a half for each additional quart or fractional part thereof.]

FRUITS AND NUTS.

297. Apples, green or ripe, twenty-five cents per bushel. [Old law: Free, unenumerated.]

298. Apples, dried, dessiccated, evaporated, or prepared in any manner, and not otherwise provided for in this act, two cents per pound. [Old law: Thirty-five per centum or free, unenumerated.]

299. Grapes, sixty cents per barrel of three cubic feet capacity or fractional part thereof; plums, and prunes, two cents per pound. [Old law: Preserved prunes, one cent per pound; grapes, twenty per centum.]

300. Figs, two and one-half cents per pound. [Old law: Two cents per pound.]

301. Oranges, lemons, and limes, in packages of capacity of one and one-fourth cubic feet or less, thirteen cents per package; in packages of capacity exceeding one and one-fourth cubic feet and not exceeding two and one-half cubic feet, twenty-five cents per package; in packages of capacity exceeding two and one-half cubic feet and not exceeding five cubic feet, fifty cents per package, in packages of capacity exceeding five cubic feet, for every additional cubic foot or fractional part thereof, ten cents; in bulk, one dollar and fifty cents per one thousand; and in addition thereto a duty of thirty per centum ad valorem upon the boxes or barrels containing such oranges, lemons, or limes. [Old law: Oranges, in boxes of capacity not exceeding two and one-half cubic feet, twenty-five cents per box; in one-half boxes, capacity not exceeding one and one-fourth cubic feet, thirteen cents per half box; in bulk, one dollar and sixty cents per thousand; in barrels, capacity not exceeding that of the one hundred and ninety-six pounds flour barrel, fifty-five cents per barrel. Lemons, in boxes of capacity not exceeding two and one-half cubic feet, thirty cents per box; in one-half boxes, capacity not exceeding one and one-fourth cubic feet, sixteen cents per half box; in bulk, two dollars per thousand. Lemons and oranges, in packages, not specially enumerated or provided for in this act, twenty per centum ad valorem. Limes, twenty per centum ad valorem.]

302. Raisens, two and one-half cents per pound. [Old law: Two cents per pound.]

303. Comfits, sweetmeats, and fruits preserved in sugar, sirup, molasses, or spirits not specially provided for in this act, and jellies of all kinds, thirty-five per centum ad valorem.

304. Fruits preserved in their own juices, thirty per centum ad valorem. [Old law: Twenty per centum.]

305. Orange peel and lemon peel, preserved or candied, two cents per pound. [Old law: Thirty-five per centum.]

306. Almonds, not shelled, five cents per pound; clear almonds, shelled, seven and one-half cents per pound.

307. Filberts and walnuts of all kinds, not shelled, three cents per pound; shelled, six cents per pound. [Old law: Shelled, three cents per pound.]

308. Peanuts or ground beans, unshelled, one cent per pound; shelled, one and one-half cents per pound. [Old law: Shelled, one cent per pound.

309. Nuts of all kinds, shelled or unshelled, not specially provided for in this act, one and one-half cents per pound. [Old law: Two cents per pound.]

MEAT PRODUCTS.

310. Bacon and hams, five cents per pound. [Old law: Two cents per pound.]

311. Beef, *mutton*, and pork, two cents per pound. [Old law: One cent per pound; mutton (unenumerated), ten per centum.]

312. Meats of all kinds, prepared or preserved, not specially provided for in this act, twenty-five per centum ad valorem. [Old law: Prepared meats of all kinds, not specially provided for, twenty-five per centum.

313. Extract of meat, all not specially provided for in this act, thirty-five cents per pound; fluid extract of meat, fifteen cents per pound; and no separate or additional duty shall be collected on such coverings unless as such they are suitable and apparently designed for use other than in the importation of meat extracts. [Old law, text: Extract of meat, twenty per centum.]

314. Lard, two cents per pound.

315. Poultry, live, three cents per pound; dressed, five cents per pound. [Old law: Poultry, dressed (unenumerated), ten per centum.]

316. Tallow, one cent per pound; *wool grease, including that known commercially as degras or broam wool grease, one-half of one cent per pound.* [Old law: Degras (unenumerated), ten per centum.]

MISCELLANEOUS PRODUCTS.

317. Chicory-root, burnt or roasted, ground or granulated, or in rolls, or otherwise prepared, and not specially provided for in this act, two cents per pound. [Old law: Chicory-root, ground or unground, burnt or prepared, two cents per pound. Change of text.]

318. Chocolate (*other than chocolate confectionery and chocolate commercially known as sweetened chocolate*), two cents per pound.

319. Cocoa prepared or manufactured, not specially provided for in this act, two cents per pound.

320. Cocoa-butter, or cocoa-butterine, three and one-half cents per pound. [Old law: Not enumerated, twenty-five per centum.]

321. Dandelion root and acorns prepared, and other articles used as coffee, or as substitutes for coffee, not specially provided for in this act, one and one-half cents per pound. [Old law: Acorns, and dandelion root, raw or prepared, and all other articles used or intended to be used as coffee, or as substitutes therefor, not specially enumerated or provided for in this act, two cents per pound.]

SALT.

322. Salt in bags, sacks, barrels, or other packages, twelve cents per one hundred pounds; in bulk, eight cents per one hundred pounds: *Provided*, That imported salt in bond may be used in curing fish taken by vessels licensed to engage in the fisheries, and in curing fish on the shores of the navigable waters of the United States, under such regulations as the Secretary of the Treasury shall prescribe; and upon proof that the salt has been used for either of the purposes stated in this proviso, the duties on the same shall be remitted: *Provided further*, That exporters of meats, whether packed or smoked, which have been cured in the United States with imported salt, shall, upon satisfactory proof, under such regulations as the Secretary of the Treasury shall prescribe, that such meats have been cured with imported salt, have refunded to them from the Treasury the duties paid on the salt so used in curing such exported meats, in amounts not less than one hundred dollars.

323. Starch, including all preparations, from whatever substance produced, fit for use as starch, two cents per pound. [Old law: Potato or corn starch, two cents per pound; rice starch, two and a half cents per pound; other starch, two and a half cents per pound. Root flour free.]

324. Dextrine, burnt starch, gum substitute, or British gum, one and one-half cents per pound. [Old law: One cent per pound.]

325. Mustard, ground or preserved, in bottles or otherwise, ten cents per pound.

326. Spices, ground or powdered, not specially provided for in this act, four cents per pound. cayenne pepper, two and one-half cents per pound, unground; sage, three cents per pound. [Old law: Spices, five cents per pound. Old law: Sage not enumerated but free by Treasury ruling when unground.]

327. Vinegar, seven and one-half cents per gallon. The standard for vinegar shall be taken to be that strength which requires thirty-five grains of bicarbonate of potash to neutralize one ounce troy of vinegar. [Omitted from new law, "and all import duties that may by law be imposed on vinegar imported from foreign countries shall be collected according to this standard."]

328. There shall be allowed on the imported tin-plate used in the manufacture of cans, boxes, packages, and all articles of tinware exported, either empty or filled with domestic products, a

drawback equal to the duty paid on such tin-plate, less one per centum of such duty, which shall be retained for the use of the United States.

Schedule H.—Spirits, Wines, and Other Beverages

SPIRITS.

329. Brandy and other spirits manufactured or distilled from grain or other materials, and not specially provided for in this act, two dollars and fifty cents per proof gallon. [Old law: Two dollars per gallon.]

330. Each and every gauge or wine gallon of measurement shall be counted as at least one proof gallon; and the standard for determining the proof of brandy and other spirits or liquors of any kind imported shall be the same as that which is defined in the laws relating to internal revenue; but any brandy or other spirituous liquors, imported in casks of less capacity than fourteen gallons, shall be forfeited to the United States: *Provided, that it shall be lawful for the Secretary of the Treasury, in his discretion, to authorize the ascertainment of the proof of wines, cordials, or other liquors by distillation or otherwise, in case where it is impracticable to ascertain such proof by the means prescribed by existing law or regulations.*

331. On all compounds or preparations of which distilled spirits are a component part of chief value not specially provided for in this act, there shall be levied a duty not less than that imposed upon distilled spirits.

332. Cordials, liquors, arrack, absinthe, kirschwasser, ratafia, and other spirituous beverages or bitters *of all kinds* containing spirits, and not specially provided for in this act, two dollars and fifty cents per proof gallon. [Old law: Two dollars per gallon.]

333. No lower rate or amount of duty shall be levied, collected, and paid on brandy, spirits, and other spirituous beverages than that fixed by law for the description of first proof; but it shall be increased in proportion for any greater strength than the strength of first proof, and all imitations of brandy or spirits or wines imported by any names whatever shall be subject to the highest rate of duty provided for the genuine articles respectively intended to be represented, and in no case less than one dollar and fifty cents per gallon. [Old law: One dollar per gallon. Old law: Distilled spirits, containing fifty per centum of anhydrous alcohol, one dollar per gallon. Alcohol, containing ninety-four per cent. anhydrous alcohol, two dollars per gallon.]

334. Bay rum or bay water, whether distilled or compounded, of first proof, and in proportion for any greater strength than first proof, one dollar and fifty cents per gallon. [Old law: One dollar per gallon.]

WINES.

335. Champagne and all other sparkling wines, in bottles containing each not more than one quart and more than one pint, eight dollars per dozen; containing not more than one pint each and more than one-half pint, four dollars per dozen; containing one-half pint each or less, two dollars per dozen; in bottles *or other vessels* containing more than one quart each, in addition to eight dollars per dozen bottles, on the quantity in excess of one quart, at the rate of two dollars and fifty cents per gallon. [Old law: Seven dollars, three dollars and fifty cents, and one dollar and seventy-five cents in bottles, and two dollars and twenty-five cents per gallon.]

336. Still wines, *including ginger wine or ginger cordial* and vermuth, in casks, fifty cents per gallon; in bottles or jugs, per case of one dozen bottles or jugs, containing each not more than one quart and more than one pint, or twenty-four bottles or jugs containing each not more than one pint, one dollar and sixty cents per case; and any excess beyond these quantities found in such bottles or jugs shall be subject to a duty of five cents per pint or fractional part thereof, but no separate or additional duty shall be assessed on the bottles or jugs: *Provided*, That any wines, *ginger cordial* or vermuth imported containing more than twenty-four per centum of alcohol shall be forfeited to the United States: *And provided further*, That there shall be no *constructive* or other allowance for breakage, leakage, or damage on wines, liquors, cordials or distilled spirits. Wines, *cordials*, brandy, and other spirituous liquors imported in bottles *or jugs* shall be packed in packages containing not less than one dozen bottles *or jugs* in each package; and all such bottles *or jugs* shall pay an additional duty of three cents for each bottle *or jug unless specially provided for in this act.*

337. Ale, porter, and beer, in bottles or jugs, forty cents per gallon, but no separate or additional duty shall be assessed on the bottles or jugs; otherwise than in bottles or jugs, twenty cents per gallon. [Old law: Thirty-five cents per gallon; twenty cents per gallon. Note.—The words of limitation, "glass, stone or earthenware," omitted from the new law.]

338. Malt extract, fluid, in casks, twenty cents per gallon; in bottles or jugs, forty cents per gallon; solid or condensed, forty per centum ad valorem. [Old law: Same as ale, beer, and porter, unless proprietary, which was fifty per centum.]

339. Cherry juice and prune juice, or prune wine, and other fruit juice, not specially provided for in this act, containing not more than eighteen per centum of alcohol, sixty cents per gallon; if containing more than eighteen per centum of alcohol, two dollars and fifty cents per proof gallon. [Old law: Cherry juice, twenty per centum; prune juice, unenumerated, twenty per centum.]

340. Ginger ale, ginger beer, lemonade, soda-water, and other similar waters in plain green or colored, molded or pressed glass bottles, containing each not more than three-fourths of a pint, thirteen cents per dozen; containing more than three-fourths of a pint each and not more than one and one-half pints, twenty-six cents per dozen; but no separate or additional duty shall be assessed on the bottles; if imported otherwise than in plain green or colored, molded or pressed glass bottles, or in such bottles containing more than one and one-half pints each, fifty cents per gallon, and in addition thereto, duty shall be collected on the bottles, or other coverings, at the rates which would be chargeable thereon if imported empty. [Old law: Ginger ale or ginger beer, twenty per centum ad valorem, but no separate or additional duty shall be collected on bottles or jugs containing the same.]

341. All mineral waters, and all imitation of natural mineral waters, and all artificial mineral waters not specially provided for in this act, in plain or colored glass bottles, containing not more than one pint, sixteen cents per dozen bottles. If containing more than one pint and not more than one quart, twenty-five cents per dozen bottles. But no separate duty shall be assessed upon the bottles. If imported otherwise than in plain green or colored glass bottles, or if imported in such bottles containing more than one quart, twenty cents per gallon, and in addition thereto duty shall be collected upon the bottles or other covering at the same rates that would be charged if imported empty or separately. [Old law: All imitations of natural mineral waters and all artificial mineral waters, thirty per centum ad valorem.]

Schedule I.—Cotton Manufactures.

342. Cotton thread, yarn, warps, or warp-yarn, whether single or advanced beyond the condition of single, by grouping or twisting two or more single yarns together, whether on beams or in bundles, skeins, or cops, or in any other form, *except spool-thread of cotton hereinafter provided for*, valued at not exceeding twenty-five cents per pound, ten cents per pound; valued at over twenty five cents per pound and not exceeding forty cents per pound, eighteen cents per pound; valued at over forty cents per pound and not exceeding fifty cents per pound, twenty-three cents per pound, valued at over fifty cents per pound and not exceeding sixty cents per pound, twenty-eight cents per pound, valued at over sixty cents per pound and not exceeding seventy cents per pound, thirty-three cents per pound, valued at over seventy cents per pound and not exceeding eighty cents per pound, thirty-eight cents per pound; valued at over eighty cents per pound and not exceeding one dollar per pound, forty-eight cents per pound; valued at over one dollar per pound, fifty per centum ad valorem. [Old law: Valued at twenty-five to forty cents, eighteen cents per pound; valued at forty to fifty cents, twenty cents per pound; valued at fifty to sixty cents, twenty-five cents per pound.]

343. Spool-thread of cotton, containing on each spool not exceeding one hundred yards of thread, seven cents per dozen; exceeding one hundred yards on each spool, for every additional one hundred yards of thread or fractional part thereof in excess of one hundred yards, seven cents per dozen spools.

344. Cotton cloth, not bleached, dyed, colored, stained, painted, or printed, and not exceeding fifty threads to the square inch, counting the warp and filling, two cents per square yard. if bleached, two and one-half cents per square yard, if dyed, colored, stained, painted, or printed, four cents per square yard. [Old law: Two and one-half cents per square yard, three and one-half cents per square yard, four and one-half cents per square yard.]

345. Cotton cloth, not bleached, dyed, colored, stained, painted, or printed, exceeding fifty and not exceeding one hundred threads to the square inch, counting the warp and filling, two and one-fourth cents per square yard. if bleached, three cents per square yard; if dyed, colored, stained, painted, or printed, four cents per square yard: *Provided, That on all cotton cloth not exceeding one hundred threads to the square inch, counting the warp and filling, not bleached, dyed, colored, stained, painted, or printed, valued at over nine cents per square yard, and dyed, colored, stained, painted, or printed, valued at over twelve cents per square yard, there shall be levied, collected and paid a duty of thirty-five per centum ad valorem.* [Old law: Two and one-half cents per square yard; three and one-half cents per square yard; four and one-half cents per square yard.]

346. Cotton cloth, not bleached, dyed, colored, stained, painted, or printed, exceeding one hundred and not exceeding one hundred and fifty threads to the square inch, counting the warp and filling, three cents per square yard; if bleached, four cents per square yard; if dyed, colored, stained, painted, or printed, five cents per square yard: *Provided*, That on all cotton cloth exceeding one hundred and not exceeding one hundred and fifty threads to the square inch, counting the warp and filling, not bleached, dyed, colored, stained, painted, or printed, valued at over seven and one-half cents per square yard; bleached, valued at over ten cents per square yard; dyed, colored, stained, painted, or printed, valued at over twelve and one-half cents per square yard, there shall be levied, collected, and paid, a duty of forty per centum ad valorem. [Old law: Three cents per square yard, four cents per square yard, five cents per square yard; if valued above eight cents, ten cents, and thirteen cents per square yard, respectively, to pay forty per centum.]

347. Cotton cloth, not bleached, dyed, colored, stained, painted, or printed, exceeding one hundred and fifty and not exceeding two hundred threads to the square inch, counting the warp and filling, three and a half cents per square yard if bleached, four and one-half cents per square yard, if dyed, colored, stained, painted, or printed, five and one half cents per square yard: *Provided*, That on all cotton cloth exceeding one hundred and fifty and not exceeding two hundred threads to the square inch, counting the warp and filling, not bleached, dyed, colored, stained, painted, or printed, valued at over eight cents per square yard, bleached, valued at over ten cents per square yard; dyed, colored, stained, painted or printed, valued at over twelve cents per square yard, there shall be levied, collected and paid a duty of forty-five per centum ad valorem. [Old law: Three cents per square yard, four cents per square yard, five cents per square yard; if valued above eight cents, ten cents and thirteen cents per square yard, respectively, to pay forty per centum.]

348. Cotton cloth, not bleached, dyed, colored, stained, painted, or printed, exceeding two hundred threads to the square inch, counting the warp and filling, four and one-half cents per square yard; if bleached, five and one-half cents per square yard; if dyed, colored, stained, painted, or printed, six and three-fourths cents per square yard: *Provided*, That on all such cotton cloths not bleached, dyed, colored, stained, painted, or printed, valued at over ten cents per square yard; bleached, valued at over twelve cents per square yard; and dyed, colored, stained, painted, or printed, valued at over fifteen cents per square yard, there shall be levied, collected and paid a duty of forty-five per centum ad valorem: *Provided further, That on cotton cloth, bleached, dyed, colored, stained, painted, or printed, containing an admixture of silk, and not otherwise provided for, there shall be levied, collected and paid a duty of ten cents per square yard, and in addition thereto thirty-five per centum ad valorem.* [Old law: Four cents per square yard, five cents per square yard, six cents per square yard; if valued above ten cents, twelve cents and fifteen cents, per square yard, respectively, to pay forty per centum.]

349. Clothing ready made, and articles of wearing apparel of every description, handkerchiefs, and neckties or neck wear composed of cotton or other vegetable fiber, or of which cotton or other vegetable fiber is the component material of chief value, made up or manufactured wholly or in part by the tailor, seamstress, or manufacturer, all of the foregoing not specially provided for in this act, fifty per centum ad valorem: *Provided*, That all such clothing ready made and articles of wearing apparel having India rubber as a component material (not including gloves or elastic articles that are specially provided for in this act), shall be subject to a duty of fifty cents per pound, and in addition thereto fifty per centum ad valorem. [Old law: Corsets, thirty-five per centum, of whatever material composed; handkerchiefs, forty per centum; other items, thirty-five per centum; hat bodies of cotton, thirty-five per centum.]

350. Plushes, velvets, velveteens, corduroys, and all pile fabrics composed of cotton or other vegetable fiber, not bleached, dyed, colored, stained, painted, or printed, ten cents per square yard and twenty per centum ad valorem; on all such goods if bleached, twelve cents per square yard and twenty per centum ad valorem; if dyed, colored, stained, painted, or printed, fourteen cents per square yard and twenty per centum ad valorem; but none of the foregoing articles in this paragraph shall pay a less rate of duty than forty per centum ad valorem. [Old law: Cotton velvet, forty per centum; corduroys, thirty-five per centum; plush, thirty-five per centum.]

351. Chenille curtains, table covers, and all goods manufactured of cotton chenille, or of which cotton chenille forms the component material of chief value, sixty per centum ad valorem. [New provision: Treasury ruling forty per centum.]

352. Stockings, hose, and half-hose, made on knitting machines or frames, composed of cotton or other vegetable fiber and not otherwise specially provided for in this act, and shirts and drawers composed of cotton, valued at not more than one dollar and fifty cents per dozen, thirty-five per centum ad valorem. [Old law: On stockings, hose, half-hose, shirts, and drawers, and all goods made on knitting machines or frames composed wholly of cotton, and not herein otherwise provided for, thirty-five per centum ad valorem.]

353. Stockings, hose, and half-hose, selvedged, fashioned, narrowed, or shaped, wholly or in part by knitting-machines or frames, or knit by hand, including such as are commercially known as seamless stockings, hose, or half-hose, all of the above composed of cotton or other vegetable fiber, finished or unfinished, valued at not more than sixty cents per dozen pairs, twenty cents per dozen pairs, and in addition thereto twenty per centum ad valorem; valued at more than sixty cents per dozen pairs, and not more than two dollars per dozen pairs fifty cents per dozen pairs and in addition thereto, thirty per centum ad valorem; valued at more than two dollars per dozen pairs and not more than four dollars per dozen pairs, seventy-five cents per dozen pairs, and in addition thereto, forty per centum ad valorem; valued at more than four dollars per dozen pairs, one dollar per dozen pairs, and in addition thereto, forty per centum ad valorem; and all shirts and drawers composed of cotton or other vegetable fiber, valued at more than one dollar and fifty cents per dozen and not more than three dollars per dozen, one dollar per dozen, and in addition thereto, thirty-five per centum ad valorem; valued at more than three dollars per dozen, and not more than five dollars per dozen, one dollar and twenty-five cents per dozen, and in addition thereto, forty per centum ad valorem; valued at more than five dollars per dozen, and not more than seven dollars per dozen, one dollar and fifty cents per dozen, and in addition thereto, forty per centum ad valorem; valued at more than seven dollars per dozen, two dollars per dozen, and in addition thereto, forty per centum ad valorem. [Old law: On stockings, hose, half-hose, shirts, and drawers, fashioned, narrowed, or shaped wholly or in part by knitting-machines or frames, or knit by hand, and composed wholly of cotton, forty per centum ad valorem.]

354. Cotton cords, braids, boot, shoe, and corset-lacings, thirty-five cents per pound; cotton gimps, galloons, webbing, goring, suspenders, and braces, any of the foregoing which are elastic or non-elastic, forty per centum ad valorem: *Provided*, That none of the articles included in this paragraph shall pay a less rate of duty than forty per centum ad valorem. [Old law: Cotton cords, braids, gimps, galloons, webbing, goring, suspenders, braces, thirty-five per centum ad valorem; webbing not otherwise provided for, thirty-five per centum.]

355. Cotton damask, in the piece or otherwise, and all manufactures of cotton not specially provided for in this act, forty per centum ad valorem. [Old law: Cotton damask, forty per centum; all manufactures not specially provided for, thirty-five per centum. Old law: Sail, duck or canvas for sails, thirty per centum.]

Schedule J.—Flax, Hemp, and Jute, and Manufactures of.

356. Flax-straw, five dollars per ton.

357. Flax, not hackled or dressed, one cent per pound. [Old law: Twenty dollars per ton.]

358. Flax, hackled, known as "dressed line," three cents per pound. [Old law: Forty dollars per ton.]

359. Tow, of flax or hemp, one-half of one cent per pound. [Old law: Ten dollars per ton.]

360. Hemp, twenty-five dollars per ton; hemp, hackled, known as line of hemp, fifty dollars per ton. [Old law: Hemp, manila and other like substitutes for hemp not specially enumerated or provided for in this act, twenty-five dollars per ton.]

361. Yarn made of jute, thirty-five per centum ad valorem.

362. Cables, cordage, and twine (except binding twine, composed in whole or in part of istle or Tampico fiber, manila, sisal grass or sunn), one and one-half cents per pound; all binding twine manufactured in whole or in part from istle or Tampico fiber, manila, sisal grass, or sunn, seven-tenths of one cent per pound; cables and cordage, made of hemp, two and one-half cents per pound; tarred cables and cordage, three cents per pound. [Old law: Tarred cables or cordage, three cents per pound; untarred manila cordage, two and one-half cents per pound. All other untarred cordage, three and one-half cents per pound.]

363. Hemp and jute carpets and carpetings, six cents per square yard.

364. Burlaps, not exceeding sixty inches in width, of flax, jute, or hemp, or of which flax, jute, or hemp, or either of them, shall be the component material of chief value (except such as may be suitable for bagging for cotton), one and five-eighths cents per pound. [Old law: Burlaps not over sixty inches, thirty per centum. Oil-cloth foundations, or floor-cloth canvas, or burlaps exceeding sixty inches in width, made of flax, jute, or hemp, or of which flax, jute, or hemp, or either of them, shall be the component material of chief value, forty per centum ad valorem. Bags and bagging, and like manufactures, not specially enumerated or provided for in this act (except bagging for cotton), composed wholly or in part of flax, hemp, jute, gunny cloth, gunny bags, or other material, forty per centum ad valorem.]

365. Bags for grain, made of burlaps, two cents per pound. [Old law: Forty per centum.]

366. Bagging for cotton, gunny cloth, and all similar material suitable for covering cotton, composed in whole or in part of hemp, flax, jute, or jute butts, valued at six cents or less per square yard, one and six-tenths cents per square yard; valued at more than six cents per square yard, one and eight-tenths cents per square yard. [Old law: Gunny cloth, not bagging, valued at ten cents or less per square yard, three cents per pound; valued at over ten cents per square yard, four cents per pound. Bagging for cotton or other manufactures not specially enumerated or provided for in this act, suitable to the uses for which cotton bagging is applied, composed in whole or in part of hemp, jute, jute butts, flax, gunny bags, gunny cloth, or other material, and valued at seven cents or less per square yard, one and one-half cents per pound; valued at over seven cents per square yard, two cents per pound.]

367. Flax gill-netting, nets, webs, and seines, when the thread or twine of which they are composed is made of yarn of a number not higher than twenty, fifteen cents per pound, and thirty-five per centum ad valorem; when made of threads or twines, the yarn of which is finer than number twenty, twenty cents per pound and in addition thereto forty-five per centum ad valorem. [Text of old law: Seines, and seine and gilling twine, twenty-five per centum.]

368. Linen hydraulic hose, made in whole or in part of flax, hemp, or jute, twenty cents per pound. [New provision.]

369. Oil-cloths for floors, stamped, painted, or printed, *including linoleum, corticene, cork-carpets, figured or plain*, and all other oil-cloth (except silk oil-cloth), and water-proof cloth, not specially provided for in this act, valued at twenty-five cents or less per square yard, forty per centum ad valorem; valued above twenty-five cents per square yard, fifteen cents per square yard and thirty per centum ad valorem. [Old law: Forty per centum.]

370. Yarns or threads composed of flax or hemp, or of a mixture of either of these substances, valued at thirteen cents or less per pound; six cents per pound; valued at more than thirteen cents per pound, forty-five per centum ad valorem. [Old law: Yarns, thirty-five per centum, flax or linen thread, twine or pack-thread, forty per centum.]

371. All manufactures of flax or hemp, or of which these substances, or either of them, is the component material of chief value, not specially provided for in this act, fifty per centum ad valorem: *Provided*, That until January first, eighteen hundred and ninety-four, such manufactures of flax containing more than one hundred threads to the square inch, counting both warp and filling, shall be subject to a duty of thirty-five per centum ad valorem in lieu of the duty herein provided. [Old law: Brown and bleached linens, ducks, canvas, paddings, cot-bottoms, diapers, crash, huckabacks, handkerchiefs, lawns, or other manufactures of flax, jute, or hemp, or of which flax, jute, or hemp shall be the component material of chief value, not specially enumerated or provided for in this act, thirty-five per centum ad valorem; manufactures of flax or of which flax shall be the component material of chief value, not specially provided for, forty per centum. Russia and other sheetings of flax or hemp, brown or white, thirty-five per centum. Webbings composed of cotton, flax, or any other material, not otherwise provided for, thirty-five per centum.]

372. Collars and cuffs, composed entirely of cotton, fifteen cents per dozen pieces and thirty-five per centum ad valorem; composed in whole or in part of linen, thirty cents per dozen pieces and forty per centum ad valorem; shirts, and all articles of wearing apparel of every description, not specially provided for in this act, composed wholly or in part of linen, fifty-five per centum ad valorem. [New provision. Old law: Rulings of Treasury Department, thirty-five per centum on cotton goods, thirty and forty per centum on linen.]

373. Laces, edgings, embroideries, insertings, neck rufflings, ruchings, trimmings, tuckings, lace window curtains, and other similar tamboured articles, and articles embroidered by hand or machinery, embroidered and hemstitched handkerchiefs and articles made wholly or in part of lace, rufflings, tuckings, or ruchings, all of the above-named articles, composed of flax, jute, cotton or other vegetable fiber, or of which these substances or either of them, or a mixture of any o them, is the component material of chief value, not specially provided for in this act, sixty per centum ad valorem: *Provided*, That articles of wearing apparel, and textile fabrics, when embroidered by hand or machinery, and whether specially or otherwise provided for in this act, shall not pay a less rate of duty than that fixed by the respective paragraphs and schedules of this act upon embroideries of the materials of which they are respectively composed. [Old law: Cotton laces, embroideries, insertings, trimmings, lace window-curtains, forty per centum ad valorem. Flax or linen laces and insertings, embroideries, or manufactures of linen, if embroidered or tamboured in the loom or otherwise, by machinery or with the needle or other process, and not specially enumerated or provided for in this act, thirty per centum ad valorem.]

374. All manufactures of jute, or other vegetable fiber, except flax, hemp, or cotton, or of which jute, or other vegetable fiber, except flax, hemp, or cotton, is the component material of chief value, not specially provided for in this act, valued at five cents per pound or less, two cents per pound; valued above five cents per pound, forty per centum ad valorem. [Old law: All other manufactures of hemp, or manila, or of which hemp or manila shall be a component material of chief value not especially enumerated or provided for in this act, thirty-five per centum ad valorem. Grass-cloth and other manufactures of jute, ramie, China, and sisal grass, not specially enumerated or provided for in this act, thirty-five per centum ad valorem.]

Schedule K.—Wool and Manufactures of Wool.

375. All wools, hair of the *camel*, goat, alpaca, and other like animals shall be divided for the purpose of fixing the duties, to be charged thereon into the three following classes:

376. Class one, that is to say, Merino, mestiza, metz, or metis wools, or other wools, of Merino blood, immediate or remote, Down clothing wools, and wools of like character, with any of the preceding, including such as have been heretofore usually imported into the United States from Buenos Ayres, New Zealand, Australia, Cape of Good Hope, Russia, Great Britain, Canada, and elsewhere, and also including all wools not hereinafter described or designated in classes two and three.

377. Class two, that is to say, Leicester, Cotswold, Lincolnshire, Down Combing wools, Canada long wools, or other like combing wools of English blood, and usually known by the terms herein used, and also hair of camel, goat, alpaca, and other like animals.

378. Class three, that is to say, Donskoi, native South American, Cordova, Valparaiso, native Smyrna, Russian camel's hair, and including all such wools of like character as have been heretofore usually imported into the United States from Turkey, Greece, Egypt, Syria, and elsewhere, excepting improved wools hereinafter provided for. [Old law: Class three, carpet wools and other similar wools.—Such as Donskoi, native South American, Cordova, Valparaiso, native Smyrna, and including all such wools of like character as have been heretofore usually imported into the United States from Turkey, Greece, Egypt, Syria, and elsewhere.]

379. The standard samples of all wools which are now or may be hereafter deposited in the principal custom houses of the United States, under the authority of the Secretary of the Treasury, shall be the standards for the classification of wools under this act, and the Secretary of the Treasury shall have the authority to renew these standards and to make such additions to them from time to time as may be required, and he shall cause to be deposited like standards in other custom houses of the United States when they may be needed. [New provision.]

380. Whenever wools of class three shall have been improved by the admixture of Merino or English blood from their present character as represented by the standard samples now or hereafter to be deposited in the principal custom-houses of the United States, such improved wools shall be classified for duty either as class one or as class two, as the case may be. [New provision.]

381. The duty on wools of the first class which shall be imported washed shall be twice the amount of the duty to which they would be subjected if imported unwashed; and the duty on wools of the first and second classes which shall be imported scoured shall be three times the duty to which they would be subjected if imported unwashed. [Old law: The duty on wools of the first class which shall be imported washed shall be twice the amount of the duty to which they would be subjected if imported unwashed; and the duty on wools of all classes which shall be imported scoured shall be three times the duty to which they would be subjected if imported unwashed.]

382. Unwashed wools shall be considered such as shall have been shorn from the sheep without any cleansing; that is, in their natural condition. Washed wools shall be considered such as have been washed with water on the sheep's back. Wool washed in any other manner than on the sheep's back shall be considered as scoured wool. [New provision.]

383. The duty upon wool of the sheep or hair of the camel, goat, alpaca, and other like animals, which shall be imported in any other than ordinary condition, or which shall be changed in its character or condition for the purpose of evading the duty, or which shall be reduced in value by the admixture of dirt, or any other foreign substance, or which has been sorted or increased in value by the rejection of any part of the original fleece, shall be twice the duty to which it would be otherwise subject: *Provided*, That skirted wools as now imported are hereby excepted. Wools on which a duty is assessed amounting to three times or more than that which would be assessed if said wool was imported unwashed, such duty shall not be doubled on account of its being sorted. If any bale or package of wool or hair specified in this act imported as of any specified class, or claimed by the importer to be dutiable as of any specified class shall contain any wool or hair subject to a higher rate of duty than the class so specified, the whole bale or package shall be subject to the highest rate of duty chargeable on wool of the class subject to such higher rate of duty, and if any bale or package be claimed by the importer to be shoddy, mungo, flocks, wool, hair, or other material of any class specified in this act, and such bale contain any admixture of any one or more of said materials, or of any other material, the whole bale or package shall be subject to duty at the highest rate imposed upon any article in said bale or package. [Old law: The duty upon wool of the sheep, or hair of the alpaca, goat, and other like animals, which shall be imported in any other than ordinary condition, as now and heretofore practiced, or which shall be changed in its character or condition for the purpose of evading the duty, or which shall be reduced in value by the admixture of dirt or any other foreign substance, shall be twice the duty to which it would be otherwise subject.]

384. The duty upon all wools and hair of the first class shall be eleven cents per pound, and upon al wools or hair of the second class twelve cents per pound. [Old law: Wools of the first class, the value whereof at the last port or place whence exported to the United States, excluding charges in such port, shall be thirty cents or less per pound, ten cents per pound; wools of the same class the value whereof at the last port or place whence exported to the United States, excluding charges in such port, shall exceed thirty cents per pound, twelve cents per pound. Wools of the second class, and all hair of the alpaca, goat, and other like animals, the value whereof, at the last port or place whence exported to the United States, excluding charges in such port, shall be thirty cents or less per pound, ten cents per pound; wools of the same class, the value whereof at the last port or place whence exported to the United States, excluding charges in such port, shall exceed thirty cents per pound, twelve cents per pound.]

385. On wools of the third class and on camel's hair of the third class the value whereof shall be thirteen cents or less per pound, including charges, the duty shall be thirty-two per centum ad valorem.

386. On wools of the third class, and on camel's hair of the third class, the value whereof shall exceed thirteen cents per pound including charges, the duty shall be fifty per centum ad valorem. [Old law: Wools of the third class, the value whereof, at the last port or place whence exported to the United States, excluding charges in such port, shall be twelve cents or less per pound, two and a half cents per pound, wools of the same class, the value whereof, at the last port or place whence exported to the United States, excluding charges in such port, shall exceed twelve cents per pound, five cents per pound.]

387. Wools on the skin shall pay the same rate as other wools, the quantity and value to be ascertained under such rules as the Secretary of the Treasury may prescribe.

388. On noils, shoddy, top waste, slubbing waste, roving waste, ring waste, yarn waste, garnetted waste, and all other wastes composed wholly or in part of wool, the duty shall be thirty cents per pound. [Old law: Shoddy and waste, ten cents per pound.

389. On woolen rags, mungo, and flocks, the duty shall be ten cents per pound. [Old law: Shoddy and waste have been transferred to preceding paragragh.]

390. Woods and hair of the camel, goat, alpaca, or other like animals, in the form of roping, roving, or tops, and all wool and hair which have been advanced in any manner or by any process of manufacture beyond the washed or scoured condition, not specially provided for in this act, shall be subject to the same duties as are imposed upon manufactures of wool not specially provided for in this act. [New provision.]

391. On woolen and worsted yarns made wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, valued at not more than thirty cents per pound, the duty per pound shall be two and one-half times the duty imposed by this act on a pound of unwashed wool of the first class, and in addition thereto, thirty-five per centum ad valorem; valued at more than thirty cents per pound, and not more than forty cents per pound, the duty per pound shall be three times the duty imposed by this act on a pound of unwashed wool of the first class, and in addition thereto thirty-five per centum ad valorem; valued at more than forty cents per pound, the duty per pound shall be three and one-half times the duty imposed by this act on a pound of unwashed wool of the first class and in addition thereto forty per centum ad valorem. [Old law: For rates see paragraph 392.]

392. On woolen or worsted cloths, shawls, knit fabrics, and all fabrics made on knitting machines or frames, and all manufactures of every description made wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, not specially provided for in this act, valued at not more than thirty cents per pound, the duty per pound shall be three times the duty imposed by this act on a pound of unwashed wool of the first class, and in addition thereto forty per centum ad valorem; valued at more than thirty and not more than forty cents per pound, the duty per pound shall be three and one half times the duty imposed by this act on a pound of unwashed wool of the first class, and in addition thereto forty per centum ad valorem; valued at above forty cents per pound, the duty per pound shall be four times the duty imposed by this act on a pound of unwashed wool of the first class, and in addition thereto fifty per centum ad valorem. [Old law: Woolen cloths, woolen shawls, and all manufactures of wool of every description, made wholly or in part of wool, not specially enumerated or provided for in this act, valued at not exceeding eighty cents per pound, thirty five cents per pound and thirty-five per centum ad valorem;

valued at above eighty cents per pound, thirty-five cents per pound, and in addition thereto forty per centum ad valorem.

393. On blankets, hats of wool, and flannels for underwear composed wholly or in part of wool, the hair of the camel, goat, alpaca, or other animals, valued at not more than thirty cents per pound, the duty per pound shall be the same as the duty imposed by this act on one pound and one-half of unwashed wool of the first class, and in addition thereto thirty per centum ad valorem; valued at more than thirty and not more than forty cents per pound, the duty per pound shall be twice the duty imposed by this act on a pound of unwashed wool of the first class; valued at more than forty cents and not more than fifty cents per pound, the duty per pound shall be three times the duty imposed by this act on a pound of unwashed wool of the first class, and in addition thereto upon all the above-named articles thirty-five per centum ad valorem. On blankets and hats of wool composed wholly or in part of wool, the hair of the camel, goat, alpaca, or other animal, valued at more than fifty cents per pound, the duty per pound shall be three and a half times the duty imposed by this act on a pound of unwashed wool of the first class, and in addition thereto forty per centum ad valorem. Flannels composed wholly or in part of wool, the hair of the camel, goat, alpaca, or other animals, valued at above fifty cents per pound, shall be classified and pay the same duty as women's and children's dress goods, coat lining, Italian cloths, and goods of similar character and description provided by this act. [Flannels, blankets, hats of wool, knit goods, and all goods made on knitting frames, balmorals, woolen and worsted yarns, and all manufactures of every description, composed wholly or in part of worsted, the hair of the alpaca, goat, or other animals (except such as are composed in part of wool), not specially enumerated or provided for in this act, valued at not exceeding thirty cents per pound, ten cents per pound; valued at above thirty cents per pound, and not exceeding forty cents per pound, twelve cents per pound; valued at above forty cents per pound and not exceeding sixty cents per pound, eighteen cents per pound; valued at above sixty cents per pound, and not exceeding eighty cents per pound, twenty-four cents per pound; and in addition thereto, upon all the above-named articles, thirty-five per centum ad valorem; valued at above eighty cents per pound, thirty-five cents per pound and in addition thereto forty per centum ad valorem.]

394. On women's and children's dress goods, coat linings, Italian cloths, and goods of similar character or description of which the warp consists wholly of cotton or other vegetable material, with the remainder of the fabric composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, valued at not exceeding fifteen cents per square yard, seven cents per square yard, and in addition thereto forty per centum ad valorem; valued at above fifteen cents per square yard, eight cents per square yard, and in addition thereto fifty per centum ad valorem: *Provided*, That on all such goods weighing over four ounces per square yard the duty per pound shall be four times the duty imposed by this act on a pound of unwashed wool of the first class, and in addition thereto fifty per centum ad valorem. [Old law: Women's and children's dress goods, coat linings, Italian cloths, and goods of like description, composed in part of wool, worsted, the hair of the alpaca, goat, or other animals, valued at not exceeding twenty cents per square yard, five cents per square yard, and in addition thereto thirty-five per centum ad valorem; valued at above twenty cents per square yard, seven cents per square yard, and forty per centum ad valorem; if composed wholly of wool, worsted, the hair of the alpaca, goat, or other animals, or of a mixture of them, nine cents per square yard, and forty per centum ad valorem, but all such goods with selvedges, made wholly or in part of other materials, or with threads of other materials introduced for the purpose of changing the classification, shall be dutiable at nine cents per square yard, and forty per centum ad valorem: *Provided*, That all such goods weighing over four ounces per square yard shall pay a duty of thirty-five cents per pound and forty per centum ad valorem.]

395. On women's and children's dress goods, coat linings, Italian cloth, bunting, and goods of similar description or character composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, and not specially provided for in this act, the duty shall be twelve cents per square yard, and in addition thereto fifty per centum ad valorem: *Provided*, That on all such goods weighing over four ounces per square yard the duty per pound shall be four times the duty imposed by this act on a pound of unwashed wool of the first class and in addition thereto, fifty per centum ad valorem. [Old law: See preceding paragraph. Bunting, ten cents per square yard, and in addition thereto thirty-five per centum ad valorem.]

396. On clothing, ready made, and articles of wearing apparel of every description, made up or manufactured wholly or in part, not specially provided for in this act, felts not woven, and not specially provided for in this act, plushes and other pile fabrics, all of the foregoing composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, the duty per pound shall be four and one-half times the duty imposed by this act, on a pound of unwashed wool of the first class, and in addition thereto sixty per centum ad valorem. [Old law: Clothing ready made, and wearing apparel of every description, not specially enumerated or provided for in this act, and balmoral skirts, and skirting, and goods of similar description, or used for like purposes, composed wholly or in part of wool, worsted, the hair of the alpaca, goat, or other animals, made up or manufactured wholly or in part by the tailor, seamstress or manufacturer, except knit goods, forty cents per pound, and in addition thereto, thirty-five per centum ad valorem; endless belts or felts for paper or printing machines, twenty cents per pound and thirty per centum ad valorem.]

397. On cloaks, dolmans, jackets, talmas, ulsters, or other outside garments for ladies' and children's apparel and goods of similar description or used for like purposes composed wholly or in part of wool, worsted, the hair of the camel, goat, alpaca, or other animals, made up or manufactured wholly or in part, the duty per pound shall be four and one-half times the duty imposed by this act on a pound of unwashed wool of the first class and in addition thereto sixty per centum ad valorem. [Old law: Cloaks, dolmans, jackets, talmas, ulsters, or other outside garments for ladies' and children's apparel and goods of similar description, or used for like purposes, composed wholly or in part of wool, worsted, the hair of the alpaca, goat, or other animals, made up or manufactured wholly or in part by the tailor, seamstress, or manufacturer (except knit goods), forty-five cents per pound, and in addition thereto, forty per centum ad valorem.]

398. On webbings, gorings, suspenders, braces, beltings, bindings, braids, galloons, fringes, gimps, cords, cords and tassels, dress trimmings, laces, and embroideries, head nets, buttons, or barrel buttons, or buttons of other forms, for tassels or ornaments, wrought by hand or braided by machinery, any of the foregoing which are elastic or non-elastic, made of wool, worsted, the hair of the camel, goat, alpaca, or other animals, or of which wool, worsted, the hair of the camel, goat, alpaca, or other animals is a component material, the duty shall be sixty cents per pound, and in addition thereto, sixty per centum ad valorem. [Webbings, gorings, suspenders, braces, beltings, bindings, braids, galloons, fringes, gimps, cords and tassels, dress trimmings, head-nets, buttons, or barrel buttons, or buttons of other forms for tassels or ornaments wrought by hand, or braided by machinery, made of wool, worsted, the hair of the alpaca, goat, or other animals, or of which wool, worsted, the hair of the alpaca, goat, or other animals is a component material, thirty cents per pound and in addition thereto, fifty per centum ad valorem.]

399. Aubusson, Axminster, Moquette, and Chenille carpets, figured or plain, carpets woven whole for rooms, and all carpets or carpeting of like character or description, and oriental, Berlin, and other similar rugs, sixty cents per square yard, and in addition thereto, forty per centum ad valorem. [Old law: Forty-five cents per square yard and thirty per centum ad valorem.]

400. Saxony, Wilton, and Tournay velvet carpets, figured or plain, and all carpets or carpeting of like character or description, sixty cents per square yard and in addition thereto forty per centum ad valorem. [Old law: Forty-five cents square yard and thirty per centum ad valorem.]

401. Brussels carpets, figured or plain, and all carpets or carpeting of like character or description, forty-four cents per square yard, and in addition thereto forty per centum ad valorem. [Old law: Thirty cents square yard and thirty per centum ad valorem.]

402. Velvet and tapestry velvet carpets, figured or plain, printed on the warp or otherwise, and all carpets or carpeting of like character or description, forty cents per square yard, and in addition thereto, forty per centum ad valorem. [Old law: Twenty-five cents square yard and thirty per centum ad valorem.]

403. Tapestry Brussels carpets figured or plain, and all carpets or carpeting of like character or description, printed on the warp or otherwise, twenty-eight cents per square yard, and in addition thereto, forty per centum ad valorem. [Old law: Twenty cents square yard and thirty per centum ad valorem.]

404. Treble ingrain, three-ply and all chain Venetian carpets, nineteen cents per square yard, and in addition thereto, forty per centum ad valorem. [Old law: Twelve cents per square yard and thirty per centum.]

405. Wool Dutch and two-ply ingrain carpets, fourteen cents per square yard, and in addition thereto, forty per centum ad valorem. [Old law: Eight cents per square yard and thirty per centum.]

406. Druggets and bockings, printed, colored, or otherwise, twenty-two cents per square yard, and in addition thereto forty per centum ad valorem. Felt carpeting, figured or plain, eleven cents per square yard, and in addition thereto, forty per centum ad valorem. [Old law: Druggets and bockings, fifteen cents per square yard and thirty per centum; felt carpeting, fifteen cents per square yard and thirty per centum, by ruling of Treasury Department.]

407. Carpets and carpeting of wool, flax or cotton, or composed in part of either, not specially provided for in this act, fifty per centum ad valorem. [Old law: Carpets and carpetings of wool, flax or cotton, or parts of either or other material not otherwise herein specified, forty per centum ad valorem.]

408. Mats, rugs, screens, covers, hassocks, bedsides, art squares, and other portions of carpets or carpeting made wholly or in part of wool, and not specially provided for in this act, shall be subjected to the rate of duty herein imposed on carpets or carpetings of like character or description. [Old law: Mats, rugs, screens, covers, hassocks, bedsides, and other portions of carpets or carpetings, shall be subjected to the rate of duty herein imposed on carpets or carpeting of like character or description; and the duty on all other mats not exclusively of vegetable material, screens, hassocks, and rugs, shall be forty per centum ad valorem.]

Schedule L.—Silk and Silk Goods.

409. Silk partially manufactured from cocoons or from waste-silk, and not further advanced or manufactured than carded or combed silk, fifty cents per pound.

410. Thrown silk, not more advanced than singles, tram, organzine, sewing silk, twist, floss, and silk threads or yarns of every description, except spun silk, thirty per centum ad valorem; spun silk in skeins or cops or on beams, thirty-five per centum ad valorem. [Old law: All this paragraph thirty-five per centum.]

411. Velvets, plushes, or other pile fabrics containing, exclusive of selvedges, less than seventy-five per centum in weight of silk, one dollar and fifty cents per pound and fifteen per centum ad valorem; containing, exclusive of selvedges, seventy-five per centum or more in weight of silk, three dollars and fifty cents per pound, and fifteen per centum ad valorem; but in no case shall any of the foregoing articles pay a less rate of duty than fifty per centum ad valorem. [New

provision. [Old law: Classified as manufactures at fifty per centum.]

412. Webbings, gorings, suspenders, braces, beltings, bindings, braids, galloons, fringes, cords and tassels, any of the foregoing which are elastic or non-elastic, buttons, and ornaments, made of silk, or of which silk is the component material of chief value, fifty per centum ad valorem. [New provision. [Old law: Classified as manufactures at fifty per centum.]

413. Laces and embroideries, handkerchiefs, neck rufflings and ruchings, clothing ready-made and articles of wearing apparel of every description, including knit goods, made up or manufactured wholly or in part by the tailor, seamstress, or manufacturer, composed of silk, or of which silk is the component material of chief value; not specially provided for in this act, sixty per centum ad valorem: *Provided*, That all such clothing ready made and articles of wearing apparel when composed in part of India rubber (not including gloves or elastic articles that are specially provided for in this act) shall be subject to a duty of eight cents per ounce, and in addition thereto sixty per centum ad valorem. [New provision. Old law: Classified as manufactures at fifty per centum.]

414. All manufactures of silk, or of which silk is the component material of chief value, not specially provided for in this act, fifty per centum ad valorem: *Provided*, That all such manufactures of which wool, or the hair of the camel, goat, or other like animals is a component material, shall be classified as manufactures of wool. [Old law: All goods, wares, and merchandise, not specially enumerated or provided for in this act, made of silk, or of which silk is the component material of chief value, fifty per centum ad valorem.]

Schedule M.—Pulp, Papers and Books.

PULP AND PAPER.

415. Mechanically ground wood pulp, two dollars and fifty cents per ton dry weight; chemical wood pulp unbleached, six dollars per ton dry weight; bleached, seven dollars per ton dry weight. [Old law: Pulp dried for papermakers' use, ten per centum.]

416. Sheathing paper, ten per centum ad valorem.

417. Printing paper unsized, suitable only for books and newspapers, fifteen per centum ad valorem. [Slight change in text.]

418. Printing paper sized or glued, suitable only for books and newspapers, twenty per centum ad valorem. [Old law: Limited to printing papers.]

419. Papers known commercially as copying paper, filtering paper, silver paper, and all tissue paper, white or colored, whether made up in copying books, reams, or in any other form, eight cents per pound, and in addition thereto, fifteen per centum ad valorem; albumenized or sensitized paper, thirty-five per centum ad valorem. [Old law: Blank-books for press copying twenty per centum; on all other of above paragraph twenty-five per centum as manufactures of paper.]

420. Papers known commercially as surface-coated papers, and manufactures thereof, cardboards, lithographic prints from either stone or zinc, bound or unbound (except illustrations when forming a part of a periodical, newspaper, or in printed books accompanying the same), and all articles produced either in whole or in part by lithographic process, and photograph, autograph, and scrap albums, wholly or partially manufactured, thirty-five per centum ad valorem. [Old law: Paper boxes and all other fancy boxes, if of surface coated papers, principally twenty-five per centum. Paper-hangings and paper for screens or fire-boards, paper antiquarian, demy, drawing, elephant, foolscap, imperial, letter, note and all other paper not specially enumerated or provided for in this fact, twenty-five per centum ad valorem.]

MANUFACTURES OF PAPER.

421. Paper envelopes, twenty-five cents per thousand. [Old law: Twenty five per centum.]

422. Paper hangings and paper for screens or fire-boards, writing-paper, drawing-paper, and all other paper not specially provided for in this act, twenty-five per centum ad valorem. [Change of text.]

423. Books, including blank books of all kinds, pamphlets and engravings, bound or unbound, photographs, etchings, maps, charts, and all printed matter not specially provided for in this act, twenty five per centum ad valorem [Old law: Illustrated books, twenty-five per centum; blank books, bound or unbound, twenty per centum.]

424. Playing cards, fifty cents per pack. [Old law: One hundred per centum.]

425. Manufactures of paper, or of which paper is the component material of chief value, not specially provided for in this act, twenty-five per centum ad valorem. [Old law: Fifteen per centum, also twenty-five per centum, paper-boxes and all other fancy boxes, thirty-five per centum.]

Schedule N.—Sundries.

426. Bristles, ten cents per pound. [Old law: Fifteen cents per pound.]

427. Brushes, and brooms of all kinds, including feather dusters and hair pencils in quills, forty per centum ad valorem. [Old law: Brushes thirty per centum; brooms, twenty-five per centum; hair pencils, thirty per centum.]

BUTTONS AND BUTTON FORMS.

428. Button forms: Lastings, mohair, cloth, silk, or other manufactures of cloth, woven or made in patterns of such size, shape or form, or cut in such manner as to be fit for buttons exclusively, ten per centum ad valorem.

429. Buttons commercially known as agate buttons, twenty-five per centum ad valorem. Pearl and shell buttons, two and one-half cents per line button measure of one fortieth of one inch per gross, and in addition thereto twenty five per centum ad valorem. [Old law: Buttons and button-molds, not specially enumerated or provided for in this act, not including brass, gilt, or silk buttons, twenty-five per centum ad valorem. Pearl and shell buttons as manufactures of shell, twenty-five per centum.]

430. Ivory, vegetable ivory, bone or horn buttons, fifty per centum ad valorem. [Old law: See preceding paragraph.]

431. Shoe-buttons, made of paper board, papier mache, pulp or other similar material not specially provided for in this act, valued at not exceeding three cents per gross, one cent per gross. [Old law: Not enumerated, at twenty-five per centum.]

432. Coal, bituminous, and shale, seventy-five cents per ton of twenty-eight bushels, eighty pounds to the bushel, coal slack or culm, such as will pass through a half-inch screen, thirty cents per ton of twenty-eight bushels, eighty pounds to the bushel.

433. Coke, twenty per centum ad valorem.

434. Cork bark, cut into squares or cubes, ten cents per pound; manufactured corks, fifteen cents per pound [Old law: Twenty-five per centum.]

435. Dice, draughts, chess-men, chess-balls, and billiard, *pool*, and bagatelle balls, of ivory, bone, *or other materials*, fifty per centum ad valorem.

436. Dolls, doll-heads, toy marbles of whatever material composed, and all other toys not composed of rubber, china, porcelain, parian, bisque, earthen or stoneware, and not specially provided for in this act, thirty five per centum ad valorem [Old law: Dolls and toys, thirty-five per centum.]

437. Emery grains, and emery manufactured, ground, pulverized, or refined, one cent per pound.

EXPLOSIVE SUBSTANCES.

438. Fire-crackers of all kinds, eight cents per pound, *but no allowance shall be made for tare or damage thereon*. [Old law: One hundred per centum.]

439. Fulminates, fulminating powders, and like articles, not specially provided for in this act, thirty per centum ad valorem.

440. Gunpowder, and all explosive substances used for mining, blasting, artillery, or sporting purposes, when valued at twenty cents or less per pound, five cents per pound, valued above twenty cents per pound, eight cents per pound [Old law: Six and eight cents.]

441. Matches, friction or lucifer, of all descriptions, per gross of one hundred and forty-four boxes, containing not more than one hundred matches per box, ten cents per gross, when imported otherwise than in boxes containing not more than one hundred matches each, one cent per one thousand matches. [Old law: Friction or lucifer matches of all descriptions, thirty-five per centum.]

442. Percussion caps. Forty per centum ad valorem.

443. Feathers and downs of all kinds, crude or not dressed, colored, or manufactured, not specially provided for in this act, ten per centum ad valorem; when dressed, colored, or manufactured, including quilts of down and other manufactures of down, and also including dressed and finished birds suitable for millinery ornaments, and artificial and ornamental feathers and flowers, or parts thereof, of whatever material composed, not specially provided for in this act, fifty per centum ad valorem [Old law: Feathers of all kinds crude or not dressed, colored or manufactured, twenty-five per centum ad valorem, when dressed, colored, or manufactured, including dressed and finished birds, for millinery ornaments, and artificial and ornamental feathers and flowers, or parts thereof, of whatever material composed, for millinery use, not specially enumerated or provided for in this act, fifty per centum ad valorem.]

444. Furs dressed on the skin *but not made up into articles*, and furs not on the skin, prepared for hatters' use twenty per centum ad valorem.

445. Glass beads, loose, unthreaded or unstrung, ten per centum ad valorem [Old law: Beads, and bead ornaments of all kinds, except amber, fifty per centum.]

446. Gun-wads of all descriptions, thirty-five per centum ad valorem

447 Hair, human, if clean or drawn but not manufactured, twenty per centum ad valorem. [Old law: Thirty per centum.]

448. Hair cloth, known as "crinoline-cloth," eight cents per square yard [Old law: Thirty per centum.]

449 Hair cloth, known as "hair-seating," thirty cents per square yard.

450. Hair, curled suitable for beds or mattresses, fifteen per centum ad valorem. [Old law: Curled hair, except of hogs, used for beds or mattresses, twenty-five per centum.]

451. Hats, for men's, women's, and children's wear, composed of the fur of the rabbit, beaver, or other animals or of which such fur is the component material of chief value, wholly or partially manufactured, including fur hat bodies, fifty five per centum ad valorem [Old law: Twenty per centum by Treasury ruling, bonnets, hats, and hoods of hair not specially provided for, thirty per centum.

JEWELRY AND PRECIOUS STONES.

452. Jewelry: All articles, not elsewhere specially provided for in this act composed of precious metals or imitations thereof, whether set with coral, jet or pearls, or with diamonds, rubies, cameos, or other precious stones or imitations thereof, or otherwise, and which shall be known commercially as "jewelry," and cameos in frames, fifty per centum ad valorem [Old law: Jewelry of all kinds, twenty five per centum.]

453. Pearls, ten per centum ad valorem [Old law: Classified at ten per centum and fifty per centum ad valorem.]

454. Precious stones of all kinds, cut but not set, ten per centum ad valorem; if set, and not specially provided for in this act, twenty five per centum ad valorem. Imitations of precious stones composed of paste or glass not exceeding one inch in dimensions not set, ten per centum ad valorem. [Old law. Precious stones of all kinds, ten per centum; compositions of glass or paste when not set, ten per centum.]

LEATHER AND MANUFACTURES OF.

455. Bend or belting leather and sole leather, and leather not specially provided for in this act, ten per centum ad valorem [Old law: Leather

bend or belting leather, and Spanish or other sole leather, and leather not specially enumerated or provided for in this act, fifteen per centum ad valorem.]

456. Calf-skins, tanned, or tanned and dressed, dressed upper leather, including patent, enameled and japanned leather, dressed or undressed, and finished; chamois or other skins not specially enumerated or provided for in this act, twenty per centum ad valorem; book-binders' calf-skins, kangaroo, sheep and goat skins, including lamb and kid skins, dressed and finished, twenty per centum ad valorem; skins for morocco, tanned but unfinished, ten per centum ad valorem; piano-forte leather and piano-forte action leather, thirty-five per centum ad valorem; japanned calf-skins, thirty per centum ad valorem; boots and shoes made of leather, twenty-five per centum ad valorem.]

457. But leather cut into shoe uppers or vamps, or other forms, suitable for conversion into manufactured articles, shall be classified as manufactures of leather, and pay duty accordingly. [Calf-skins, tanned, or tanned and dressed, and dressed upper leather of all other kinds, and skins dressed and finished, of all kinds not specially enumerated or provided for in this act, and skins of morocco, finished, twenty per centum ad valorem. Skins for morroco, tanned, but unfinished, ten per centum ad valorem. All manufactures and articles of leather, or of which leather shall be a component part, not specially enumerated or provided for in this act, thirty per centum ad valorem.]

458. Gloves of all descriptions, composed wholly or in part of kid or other leather, and whether wholly or partly manufactured, shall pay duty at the rates fixed in connection with the following specified kinds thereof, fourteen inches in extreme length when stretched to the full extent, being in each case hereby fixed as the standard, and one dozen pairs as the basis, namely: Ladies' and children's schmaschen of said length or under, one dollar and seventy-five cents per dozen; ladies' and children's lamb of said length or under, two dollars and twenty-five cents per dozen: ladies' and children's kid of said length or under, three dollars and twenty-five cents per dozen; ladies' and children's suedes of said length or under, fifty per centum ad valorem; all other ladies' and children's leather gloves, and all men's leather gloves of said length or under, fifty per centum ad valorem; all leather gloves over fourteen inches in length, fifty per centum ad valorem; and in addition to the above rates there shall be paid on all men's gloves one dollar per dozen; on all lined gloves, one dollar per dozen; on all pique or prick seam gloves, fifty cents per dozen; on all embroidered gloves with more than three single strands or cords, fifty cents per dozen pairs. *Provided*, That all gloves represented to be of a kind or grade below their actual kind or grade shall pay an additional duty of five dollars per dozen pairs: *Provided further*, That none of the articles named in this paragraph shall pay a less rate of duty than fifty per centum ad valorem. [Old law: Gloves, kid or leather, of all descriptions, wholly or partially manufactured, fifty per centum ad valorem.]

MISCELLANEOUS MANUFACTURES.

459. Manufactures of alabaster, amber, asbestos, bladders, coral, cat-gut or whip-gut or worm-gut, jet, paste, spar, wax, or of which these substances or either of them is a component material of chief value, not specially provided for in this act, twenty-five per centum ad valorem; osier or willow prepared for basketmakers' use, thirty per centum ad valorem; manufactures of osier or willow, forty per centum ad valorem. [Old law: Baskets and all other articles composed of osier or willow not specially enumerated or provided for in this act, thirty per centum ad valorem. Alabaster and spar statuary and ornaments, ten per centum; manufactures of bladders, twenty-five per centum; bonnets, hats and hoods for men, women and children, composed of willow, thirty per centum; wax candles and tapers, twenty per centum; willow sheets or squares, twenty per centum; osier or willow prepared for basketmakers' use, twenty-five per centum; gut and worm-gut, manufactures, free; asbestos manufactures, twenty-five per centum; jet manufactures and imitations of, twenty-five per centum.]

460. Manufactures of bone, chip, grass, horn, India-rubber, palm leaf, straw, weeds, or whalebone, or of which these substances or either of them is the component material of chief value; not specially provided for in this act, thirty per centum ad valorem. [Old law: Manufactures of bone and horn, compositions of, thirty per centum; paste, ten per centum; coral, cut, manufactured, twenty-five per centum; baskets and all other articles composed of grass, palm-leaf, whalebone, or straw, thirty per centum. India-rubber fabrics composed wholly or in part of india rubber, not specially enumerated or provided for in this act, thirty per centum ad valorem. Articles composed of India-rubber, not specially enumeratcd or provided for in this act, twenty-five per centum ad valorem. India-rubber boots and shoes, twenty-five per centum ad valorem. Bonnets, hats and hoods for men, women and children composed of chip, grass, palm-leaf, or straw or any other vegetable substance, whale-bone, or other material, not specially enumerated or provided for in this act, thirty per centum ad valorem.]

461. Manufactures of leather, fur, gutta-percha, vulcanized India-rubber, known as hard rubber, human hair, papier-mache, and indurated fiber wares and other manufactures composed of wood or other pulp, or of which these substances or either of them is the component material of chief value, all of the above not specially provided for in this act, thirty-five per centum ad valorem. [Old law: Fur, articles of, thirty per centum; human hair, when manufactured, thirty-five per centum; gutta-percha, manufactured, and all articles of, thirty-five per centum; papier-mache manufactures, articles and wares, thirty per centum. Hair, human, bracelets, braids, chains, rings, curls, and ringlets, composed of hair, or of which hair is the component material of chief value, thirty-five per centum ad valorem.]

462. Manufactures of ivory, vegetable ivory, mother-of-pearl, and shell, or of which these substances or either of them is the component material of chief value, not specially provided for in this act, forty per centum ad valorem. [Old law: Manufactures of ivory and vegetable ivory, thirty per centum; shells, whole or parts of, manufactured, of every description not specially provided for, twenty-five per centum ad valorem.]

463. Masks, composed of paper or pulp, thirty-five per centum ad valorem. [New provision.]

464. Matting made of cocoa-fiber or rattan, twelve cents per square yard; mats made of cocoa-fiber or rattan, eight cents per square foot. [Old law: Floor matting and floor mats, exclusively of vegetable substances, twenty per centum.]

465. Paintings, in oil or water colors, and statuary, not otherwise provided for in this act, fifteen per centum ad valorem; but the term "statuary" as herein used shall be understood to include only such statuary as is cut, carved, or otherwise wrought by hand from a solid block or mass of marble, stone or alabaster, or from metal, and as is the professional production of a statuary or sculptor only. [Old law: Thirty per centum.]

466. Pencils of wood filled with lead or other material, and pencils of lead, fifty cents per gross and thirty per centum ad valorem; slate pencils, four cents per gross. [Old law: Slate pencils, thirty per centum.]

467. Pencil-leads, not in wood, ten per centum ad valorem

PIPES AND SMOKERS' ARTICLES.

468. Pipes, pipe-bowls, of all materials, and all smokers' articles whatsoever, not specially provided for in this act, including cigarette-books, cigarette book-covers, pouches for smoking or chewing tobacco, and cigarette paper in all forms, seventy per centum ad valorem; all common tobacco pipes of clay, fifteen cents per gross. Pipes, pipe bowls, and all smokers' articles whatsoever, not specially enumerated or provided for in this act, seventy per centum ad valorem; all common pipes of clay, thirty-five per centum ad valorem.

469. *Plush, black, known commercially* as hatters' plush, composed of silk, or of silk and cotton, *and used exclusively for making men's hats*, ten per centum ad valorem. [Old law: Twenty-five per centum.]

470. Umbrellas, parasols, and sunshades covered with silk or alpaca, fifty-five per centum ad valorem; if covered with other material, forty-five per centum ad valorem. [Old law: Fifty per centum and forty per centum.]

471. Umbrellas, parasols, and sunshades, sticks for, *if plain*, finished or unfinished, thirty-five per centum ad valorem; *if carved*, fifty per centum ad valorem. [Old law: Thirty per centum.]

472. Waste, not specially provided for in this act, ten per centum ad valorem. [Old law: Items specially provided for under the old law, which will be classified under the new law according to the component material of chief value. Card-cases, pocket-books, shell-boxes, and all similar articles, of whatever material composed, and by whatever name known, not specially enumerated or provided for in this act, thirty-five per centum ad valorem. Carriages, and parts of, not specially enumerated or provided for in this act, thirty-five per centum ad valorem. Coach and harness furniture of all kinds, saddlery, coach, and harness hardware, silver-plated, brass, brass-plated, or covered, common, tinned, burnished, or japanned, not specially enumerated or provided for in this act, thirty-five per centum ad valorem. Combs, of all kinds, thirty per centum ad valorem. Crayons, of all kinds, twenty per centum ad valorem. Fans of all kinds except common palm-leaf fans, of whatever material composed, thirty-five per centum ad valorem. Finishing powder, twenty per centum ad valorem. Japanned ware of all kinds, not specially enumerated or provided for in this act, forty per centum ad valorem. Musical instruments of all kinds, twenty-five per centum ad valorem. Philosophical apparatus and instruments, thirty-five per centum ad valorem. Polishing powders of every description, by whatever name known, including Frankfort-black, and Berlin, Chinese, fig, and wash blue, twenty per centum ad valorem. Scagliola, and composition tops for tables or for other articles of furniture, thirty-five per centum ad valorem. Teeth, manufactured, twenty per centum ad valorem.

The Free List.

(Figures in brackets show the rate of duty under the old law.)

SEC. 2. On and after the sixth day of October, eighteen hundred and ninety, unless otherwise specially provided for in this act, the following articles when imported shall be exempt from duty:

Acid used for medicinal, chemical, or manufacturing purposes not specially provided for in this act.

Aconite.

Acorns, raw, dried or undried, but unground.

Agates, unmanufactured.

Albumen.

Alizarine, natural or artificial, *and dyes commercially known as Alizarine yellow, Alizarine orange, Alizarine green, Alizarine blue, Alizarine brown, Alizarine black.*

Amber, unmanufactured, or crude, gum. [Old law: Amber beads and gum.]

Ambergris.

Aniline salts. [Old law: Aniline salts, or black salts or black tares.]

Any animal imported specially for breeding purposes shall be admitted free: *Provided*, That no such animal shall be admitted free unless pure bred of a recognized breed and duly registered in a book of record established for that breed: *And provided further*, That certificate of such record and of the pedigree of such animal shall be produced and submitted to the customs officer, duly authenticated by the proper custodian of such book of record, together with the affidavit of the owner, agent or importer that such animal is the identical animal described in said certificate of record and pedigree. The Secretary of the Treasury may prescribe such additional regulations as may be required for the strict enforcement of this provision. [Old law: Animals specially imported for breeding purposes shall be admitted free upon proof thereof satisfactory to the Secretary of the Treasury, and under such regulations as he may prescribe, and teams of animals, includ-

ing their harness and tackle and the vehicles or wagons actually owned by persons emigrating from foreign countries to the United States with their families, and in actual use for the purpose of such emigration, shall also be admitted free of duty, under such regulations as the Secretary of the Treasury may prescribe.]

Animals brought to the United States temporarily for a period not exceeding six months, for the purpose of exhibition or competition for prizes offered by an agricultural or racing association, but a bond shall be given in accordance with regulations prescribed by the Secretary of the Treasury, also teams of animals, including their harness and tackle, and the wagons or other vehicles actually owned by persons emigrating from foreign countries to the United States with their families, and in actual use for the purpose of such emigration under such regulations as the Secretary of the Treasury may prescribe, *and wild animals intended for exhibition in zoological collections for scientific and educational purposes, and not for sale or profit.*

Annatto, oucou, rocoa, or orleans, and all extracts of.

Antimony, ore, crude sulphide of.

Apatite.

Argal, or argol, or crude tartar.

Arrowroot, *raw or unmanufactured.*

Arsenic and sulphide of, or orpiment.

Arseniate of aniline.

Artificial stops composed of glass and metal and valued at not more than six cents per gross. [New provision.]

Articles in a crude state used in dyeing or tanning not specially provided for in this act.

Articles the growth, produce, and manufacture in the United States, when returned after having been exported, without having been advanced in value or improved in condition by any process of manufacture or other means; casks, barrels, carboys, bags, and other vessels of American manufacture exported filled with American products, or exported empty and returned filled with foreign products, including shooks when returned as barrels or boxes; also quicksilver flasks or bottles, of either domestic or foreign manufacture, which shall have been actually exported from the United States; but proof of the identity of such articles shall be made, under general regulations to be preserved by the Secretary of the Treasury; and if any such articles are subject to internal tax at the time of exportation such tax shall be proved to have been paid before exportation and not refunded: *Provided*, That this paragraph shall not apply to any article upon which an allowance of drawback has been made, the re-importation of which is hereby prohibited except upon payment of duties equal to the drawbacks allowed; or to any article manufactured in bonded warehouse and exported under any provision of law: *And provided further*, That when manufactured tobacco which has been exported without payment of internal-revenue tax shall be re-imported it shall be retained in the custody of the collector of customs until internal-revenue stamps in payment of the legal duties shall be placed thereon. [Old law: Barrels of American manufacture, exported filled with domestic petroleum, and returned empty under such regulations as the Secretary of the Treasury may prescribe, and without requiring the filing of a declaration at time of export of intent to return the same empty. Articles the growth, produce, and manufacture of the United States, when returned in the same condition as exported. Casks, barrels, carboys, bags and other vessels of American manufacture, exported filled with American products, or exported empty and returned filled with foreign products, including shooks when returned as barrels or boxes, but proof of the identity of such articles shall be made under the regulations to be prescribed by the Secretary of the Treasury and if any such articles are subject to internal tax at the time of exportation, such tax shall be proved to have been paid before exportation and not refunded. (a) *And provided further*, That bags, other than of American manufacture, in which grain shall have been actually exported from the United States may be returned empty to the United States, free of duty, under regulations to be prescribed by the Secretary of the Treasury Sec. 7, act of Feb 8, 1875.]

Asbestos, unmanufactured. [Old law: Articles imported for the use of the United States, provided that the price of the same did not include the duty.]

Ashes, wood and lye of, and beet root ashes.

Asphaltum and bitumen, crude.

Asafœtida.

Balm of Gilead.

Barks, cinchona or other from which quinine may be extracted. [Old law: Barks, cinchona or other barks used in the manufacture of quinine.]

Baryta, carbonate of, or witherite.

Bauxite, or aluminite.

Beeswax. [Old law: Twenty per centum.]

Bells broken, and bell metal broken and fit only to be remanufactured.

Birds, stuffed, *not suitable for millinery ornaments, and birds' skins, prepared or preservation, but not further advanced than manufacture*

Birds and hand and water fowls.

Bismuth.

Bladders, including fish bladders or fish sounds, crude, and all integuments of animals not specially provided for in this act.

Blood, dried.

Bologna sausages.

Bolting cloths, *especially for milling purposes, but not suitable for the manufacture of wearing apparel.*

Bones crude, or not burned, calcined, ground, steamed or otherwise manufactured, and bone-dust or animal carbon and bone ash, fit only for fertilizing purposes. [Old law: Bones, crude, not manufactured, burned, calcined, ground or steamed. Bone-dust and bone-ash or manufacture of phosphate and fertilizers.]

Books, engravings, *photographs*, bound or unbound etchings, maps and charts, which shall have been printed and *bound* or manufactured more than twenty years at the date of importation.

Books and pamphlets printed exclusively in languages other than English; also books and music in raised print, used exclusively by the blind.

Books, *engravings, photographs, etchings, bound or unbound*, maps and charts imported by authority or for the use of the United States, or for the use of the Library of Congress. [Note—The following words are omitted from new law: "But the duty shall not have been included in the contract of price paid."]

Books, maps, *lithographic prints* and charts specially imported, not more two copies in any one invoice, in good faith, for the use of any society incorporated or established for *educational*, philosophical, literary, or religious purposes, or for the encouragement of the fine arts, or for the use or by order of any college, academy, school, or seminary of learning in the United States, *subject to such regulations as the Secretary of the Treasury shall prescribe*

Books or libraries, or parts of libraries, and other household effects of persons or families from foreign countries, if actually used abroad by them not less than one year, and not intended for any other person or persons, nor for sale.

Brazil paste.

Braids, plaits, laces, and similar manufactures composed of straw, chip grass, palm leaf, willow, osier, or rattan, suitable for making or ornamenting hats, bonnets and hoods. [Old law: Twenty per centum.]

Brazilian pebble, unwrought or unmanufactured. [Old law: Brazilian pebbles for spectacles and pebbles for spectacles rough.]

Breccia, in blocks or slabs.

Bromine.

Bullion, gold or silver.

Burgundy pitch.

Cabinets of old coins and medals and other collections of antiquities, but the term "antiquities" as used in this act shall include only such articles as are suitable for souvenirs or cabinet collections, and which shall have been produced at any period prior to the year seventeen hundred. [Old law: Cabinets of coins, medals, and all other collections of antiquities.]

Cadmium.

Calamine.

Camphor, crude.

Castor, or castoreum.

Catgut, whipgut or wormgut, unmanufactured, or not further manufactured than in strings or cord. [Old law: Catgut strings or gut cord or musical instruments strings. All strings of catgut or any other like material, other than strings for musical instruments, twenty-five per centum ad valorem.]

Cerium.

Chalk, unmanufactured. [Old law contains cliffstone.]

Charcoal.

Chicoryroot, raw, dried or undried, but unground.

Civet, crude.

Clay—common blue clay in casks suitable for the manufacture of crucibles. [New provision.]

Coal, anthracite.

Coal stores of American vessels, but none shall be unloaded.

Coal tar, crude.

Cobalt and cobalt ore. [Old law: Cobalt, ore of, cobalt is metallic arsenic.]

Coccinus indicus.

Cochineal.

Cocoa, or cacoa, crude and fiber, leaves and shells of.

Coffee.

Coins, gold, silver and copper.

Coir and coir yarn.

Copper, old, taken from the bottom of American vessels compelled by marine disaster to repair in foreign ports.

Coral, marine, *uncut and* unmanufactured.

Cork wood or cork bark, unmanufactured.

Cotton *and cotton-waste or flocks.*

Cryolite or kryolith.

Cudbear.

Curling-stones, or quoits, and curling-stone handles.

Curry and curry powder.

Cutch.

Cuttlefish bone.

Dandelion roots, raw, dried or undried, but unground.

Diamonds *and other precious stones*, rough or uncut, *including glaziers' and engravers' diamonds not set*, and diamond dust or bort, *and jewels to be used in the manufacture of watches*

Divi divi.

Dragon's blood.

Drugs, such as barks, beans, berries, balsams, buds, bulbs, and bulbous roots, excrescences, such as nut-galls, fruits, flowers, dried fibers, and dried insects, grains, gums and gum-resin, herbs, leaves, lichens, mosses, nuts, roots, and stems, spices, vegetables, seeds, aromatic and seeds of morbid growth, weeds and woods used expressly for dyeing; any of the foregoing which are not edible and are in a crude state, and not advanced in value or condition by refining or grinding, or by other process of manufacture and not specially provided for in this act

Eggs *of birds, fish and insects*

Emery ore.

Ergot.

Fans, common palm-leaf *and palm-leaf unmanufactured.*

Farina.

Fashion plates, engraved on steel, *or copper*, or on wood, colored or plain.

Feathers and downs for beds. [Old law: Bed feathers and downs.]

Feldspar.

Felt, adhesive, for sheathing vessels.

Fibrin in all forms.

Fish, the product of American fisheries and fresh or frozen fish (except salmon) caught in fresh waters by American vessels, or with nets or other devices owned by citizens of the United States. [Old law: Fish, fresh, for immediate consumption.]

Fish for bait.

Fish skins. [Also shark skins under old law.]

Flint, flints and ground flint stones.

Floor matting manufactured from round or split straw, including what is commonly known as Chinese matting. [Old law: Floor matting and floor mats exclusively of vegetable substances, twenty per centum.]

Fossils.

Fruit plants, tropical and semi-tropical, for the purpose of propagation or cultivation.

FRUITS AND NUTS.

Currants, Zante or other. [Old law: One cent per pound.]

Dates. [Old law: One cent per pound.]
Fruits, green, ripe or dried, not specially provided for in this act.
Tamarinds.
Cocoanuts.
Brazil nuts.
Cream nuts.
Palm nuts.
Palm nut kernels.
Furs, undressed.
Fur skins of all kinds not dressed in any manner.
Gambier.
Glass, broken, and old glass, which cannot be cut for use, and fit only to be remanufactured.
Glass plates or disks, rough cut or unwrought, for use in the manufacture of optical instruments, spectacles and eyeglasses, and suitable only or such use: *Provided however*, That such disks exceeding eight inches in diameter may be polished sufficiently to enable the character of the glass to be determined. [Old law: Glass plates or disks, unwrought, for use in the manufacture of optical instruments.]

GRASSES AND FIBERS.

Istle, or Tampico fiber.
Jute. [Old law: Twenty per centum.]
Jute butts. [Old law: Five dollars per ton.]
Manila.
Sisal grass. [Old law: Fifteen dollars per ton.]
Sunn. [Old law: Fifteen dollars per ton.]
And all other textile grasses or fibrous vegetable substances, unmanufactured or undressed, not specially provided for in this act. [Old law: Fifteen dollars per ton. Esparto or Spanish grass and other grasses, and pulp of, for the manufacture of paper.]
Gold-beaters' molds and gold-beaters' skins.
Grease and oils such as are commonly used in soap-making or in wire-drawing, or for stuffing or dressing leather, and which are fit only for such uses, not specially provided for in this act. [Old law: Grease for use as soap stock only, not specially provided for; soap stocks free; grease all not specially enumerated or provided for, ten per centum.]
Guano, manures and all substances expressly used for manure.
Gunny bags and gunny cloths, old or refuse, fit only for remanufacture.
Guts, salted.
Gutta-percha, crude.
Hair of horse, cattle, and other animals, cleaned or uncleaned, drawn or undrawn, but unmanufactured, not specially provided for in this act; and human hair, raw, uncleaned and not drawn. [Old law: Hair, horse or cattle, and hair of all kinds, cleaned or uncleaned, drawn or undrawn, but unmanufactured, not specially enumerated or provided for in this act; of hogs, curled for beds and mattresses, and not fit for bristles.]
Hides, raw or uncured, whether dry, salted or pickled. Angora goatskins, raw without the wool, unmanufactured, asses' skins, raw or unmanufactured, and skins, except sheepskins, with the wool on. [Old law: Also goat-skins raw.]
Hide-cuttings, raw, with or without hair, and all *other* glue stock.
Hide rope.
Hones and whetstones.
Hoofs, *unmanufactured*.
Hop roots for cultivation.
Horns and parts of, unmanufactured, including horn strips and tips.
Ice.
India-rubber, crude and milk of, and old scrap or refuse India-rubber which has been worn out by use and is fit only for remanufacture.
Indigo. [Old law: Indigo and artificial indigo.]
Iodine, crude.
Ipecac.
Iridium.
Ivory and vegetable ivory, *not sawed, cut, or otherwise manufactured*. [Old law contained word *unmanufactured*.]
Jalap.
Jet, unmanufactured.
Joss-stick, or Joss-light.
Junk, old.
Kelp.
Kieserite.
Kyanite, or cyanite, and kainite.
Lac dye, crude, seed, button, stick and shell.
Lac spirits.
Lactarine.
Lava, unmanufactured.
Leeches.
Lemon juice, lime juice, *and sour orange juice*.
Licorice root, unground.
Lifeboat and life-saving apparatus specially imported by societies incorporated or established to encourage the saving of human life.
Lime, citrate of.
Lime, chloride of, or bleaching powder.
Lithographic stones not engraved.
Litmus, prepared or not prepared.
Lodestones.
Madder and munjeet, or Indian madder, ground or prepared, and all extracts of.
Magnesite, or native mineral carbonate of magnesia.
Magnesium.
Magnets.
Manganese, oxide and ore of.
Manna.
Manuscripts.
Marrow, crude.
Marshmallows.
Medals of gold, silver or copper, *such as trophies or prizes*.
Meerschaum, crude or unmanufactured. [Old law says raw instead of unmanufactured.]
Mineral waters, all not artificial.
Minerals, crude or not advanced in value or condition by refining or grinding, or by other process of manufacture, not specially provided for in this act.
Models of inventions and of other improvements in the arts, including patterns for machinery, but no article shall be deemed a model or pattern which can be fitted for use otherwise. [Old law: Changed from improvement to pattern.]
Moss, sea weeds, and vegetable substances, crude or unmanufactured, not otherwise specially provided for in this act. [Old law: Moss, seaweeds, and all other vegetable substances used for beds and matresses.]
Musk, crude, in natural pods.
Myrobolan.
Needles, hand-sewing and darning.
Newspapers and periodicals *but the term "periodicals" as herein used shall be understood to embrace only unbound or paper-covered publications, containing current literature of the day and issued regularly at stated periods as weekly, monthly, or quarterly.*
Nux vomica.
Oakum.
Oilcake.
Oils—Almond, amber, crude and rectified ambergris, anise or anise seed, aniline, aspic or spike lavender, bergamot, cajeput, caraway, cassia, cinamon, cedrat, chamomile, citronella or lemon grass, civet, fennel, jasmine or jasimine, juglandium, juniper, lavender, lemon, limes, mace, neroli, or orange flower, nut oil or oil of nuts not otherwise specially provided for in this act, orange oil, olive oil for manufacturing or mechanical purposes, unfit for eating and not otherwise provided for in this act, attar of roses, palm and cocoanut, rosemary or anthoss, sesame or sesamum seed or bene, thyme, origanum, red or white; valerian, and also spermaceti, whale and other fish oils of American fisheries, and all other articles the produce of such fisheries.
Olives, green or prepared.
Opium, crude or unmanufactured, and not adulterated, containing nine per centum and over of morphia.
Orange and lemon peel, not preserved, candied, or otherwise prepared.
Orchil or orchil liquid.
Orchids, lily of the valley, azaleas, palms, and other plants used for forcing under glass for cut flowers or decorative purposes.
Ores of gold, silver *and nickel and nickel matte: Provided, That ores of nickel and nickel matte, containing more than two per centum of copper, shall pay a duty of one-half of one cent per pound on the copper contained therein*. [Old law. All forms of nickel, fifteen cents per pound.]
Osmium.
Palladium.
Paper stock, crude, of every description, including all grasses, fibers, rags (other than wool), waste, shavings, clippings, old paper, rope ends, waste rope, waste bagging, old or refuse gunny bags or gunny cloth, and poplar or other woods, fit only to be converted into paper. [Old law: Leather, old scraps, enumerated. Sea-weed not specially provided for. Paper-stock, crude, of every description, including all grasses, fibers, rags of all kinds, other than wool, waste, shavings, clippings, old paper, rope ends, waste rope, waste bagging, gunny bags, gunny cloth, old or refuse, to be used in making, and fit only to be converted into paper, and unfit for any other manufacture, and cotton waste, whether for paper stock or other purposes. Rags of whatever material composed, and not specially provided for in this act, ten per centum. [See fibers and grasses.]
Paraffine.
Parchment and vellum.
Pearl, mother of, *not sawed, cut, polished, or otherwise manufactured*.
Peltries and other usual goods and effects of Indians passing or repassing the boundary line of the United States, under such regulations as the Secretary of the Treasury may prescribe: *Provided*, That this exemption shall not apply to goods in bales or other packages unusual among Indians.
Personal and household effects not merchandise of citizens of the United States dying in foreign countries.
Pewter and britannia metal old, and fit only to be remanufactured.
Philosophical and scientific apparatus, instruments and preparations; statuary, casts of marble, bronze, alabaster or plaster of Paris; paintings, drawings and etchings, specially imported in good faith for the use of any society or institution incorporated or established for religious, philosophical, educational, scientific or literary purposes, or for encouragement of the fine arts and not intended for sale.
Phosphates, crude or native. [Old law contains words: "For fertilizing purposes."]
Plants, trees, shrubs, roots, seed cane and seeds, all of the foregoing imported by the Department of Agriculture or the United States Botanic Garden.
Plaster of Paris and sulphate of lime, unground.
Platina, in ingots, bars, sheets, and wire. [Old law: Platina, unmanufactured.]
Platinum, unmanufactured, and vases, retorts and other apparatus, vessels and parts thereof *composed of platinum* for chemical uses.
Plumbago.
Polishing stones.
Potash, crude, carbonate of, or "black salts." Caustic potash or hydrate of, not including refined, in sticks or rolls. Nitrate of potash or saltpeter, crude. Sulphate of potash, crude or refined. Chlorate of potash. Muriate of potash. [Old law: Caustic, and so forth, twenty per centum; chlorate, three cents per pound; sulphate twenty per centum; nitrate of, or saltpeter crude, one cent per pound.]
Professional books, implements, instruments, and tools of trade, occupation, or employment in the actual possession at the time of persons arriving in the United States; but this exemption shall not be construed to include machinery or other articles imported for use in any manufacturing establishment, or for any other person or persons, or for sale. [Old law: Professional books only.]
Pulu.
Pumice.
Quills, prepared or unprepared, *but not made up into complete articles*.
Quinia, sulphate of, and all alkaloids or salts of cinchona bark. [Old law: Quinia, sulphate of, salts of and cinchonidia.]
Rags not otherwise specially provided for in this act. [Old law: Rags of all kinds other than wool.]
Regalia and gems, statues, statuary, and specimens of sculpture where specially imported in good faith for the use of any society incorporated or established *solely* for *educational*, philosoph-

ical, literary or religious purposes, or for the encouragement of fine arts, or for the use or by order of any college, academy, school, seminary of learning, or public library in the United States: *but the term "regalia" as herein used shall be held to embrace only such insignia of rank or office or emblems, as may be worn upon the person or borne in the hand during public exercises of the society or institution, and shall not include articles of furniture or fixtures, or of regular wearing apparel, not personal property of individuals.*

Rennets, raw or prepared.

Saffron and safflower and extract of, and saffron cake.

Sago, crude, and sago flour.

Salacine.

Sauerkraut

Sausage skins.

Seeds, anise, canary, caraway, cardamon, coriander, cotton, cummin, fennel, fenugreek, hemp, hoarhound, mustard, rape, St. John's bread or bene, sugar beet, mangel wurzel, sorghum or sugar cane for seed, and all flower and grass seeds; bulbs and bulbous roots, not edible; all the foregoing not specially provided for in this act. [Old law: Bulbs and bulbous roots, not medicinal, not otherwise provided for, twenty per centum.]

Selep or saloup.

Shells of all kinds, not cut, ground or otherwise manufactured. [Old law: Shells of every description, not manufactured; tortoise and other shells, unmanufactured, free.]

Shotgun-barrels, forged, rough bored. [Old law: Ten per centum.]

Shrimps and other shell fish.

Silk, raw or as reeled from the cocoon, but not doubled, twisted, or advanced in manufacture in any way.

Silk cocoons and silk-waste.

Silkworms' eggs.

Skeletons and other preparations of anatomy.

Snails.

Soda, nitrate or cubic nitrate and chlorate of.

Sodium.

Sparterre, *suitable* for making or ornamenting hats.

Specimens of natural history, botany, and mineralogy, when imported for cabinets or as objects of science, and not for sale. [Old law extended to *objects of taste.*]

SPICES.

Cassia, cassia vera and cassia buds, unground.

Cinnamon and chips of, unground.

Cloves and clove-stems, unground.

Ginger root, unground *and not preserved or candied.*

Mace.

Nutmegs.

Pepper, black or white, unground.

Pimento, unground.

Spunk.

Spurs and stilts used in the manufacture of earthen, porcelain, and stoneware. [Old law was crockery instead of porcelain.]

Stone and sand. Burrstone in blocks, rough or manufactured and not bound up into millstones; cliff stone, unmanufactured; pumice stone, rotten stone, and sand, crude or manufactured.

Storax, or styrax.

Strontia, oxide of, and protoxide of strontian, and strontianite, or mineral carbonite of strontia.

Sugars, all not above No. 16 Dutch standard in color, all tank bottoms, all sugar drainings and sugar sweepings, sirups of cane juice, melada, concentrated melada and concrete and concentrated molasses and molasses. [Old law: All sugars not above No. 13 Dutch standard in color shall pay duty on their polariscopic test as follows, viz. All sugars not above No. 13 Dutch standard in color, all tank bottoms, sirups of cane juice or of beet juice, melada, concentrated melada, concrete and concentrated molasses, testing by the polariscope not above seventy-five degrees, shall pay a duty of one and forty-hundredths cents per pound, and for every additional degree or fraction of a degree shown by the polariscopic test, they shall pay four hundredths of a cent per pound additional: (a *Provided*, That concentrated melada, or concrete, shall hereafter be classed as sugar * * * and melada shall be known and defined as an article made in the process of sugar-making being the cane juice boiled down to the sugar point and containing all the sugar and molasses resulting from the boiling process and without any process of purging or clarification, and any and all products of the sugar cane imported in bags, mats, baskets, or other than tight packages shall be considered sugar and dutiable as such. *And provided further*, That of the drawback on refined sugars exported allowed by section three thousand and nineteen of the Revised Statutes of the United States, only one per centum of the amount so allowed shall be retained by the United States. Act of March 3, 1875, sec. 3.) Sugar, thirteen to sixteen Dutch standard, two and seventy-five one-hundredths cents per pound. [Old law: Molasses testing not above fifty-six degrees by the polariscope, shall pay a duty of four cents per gallon; molasses testing above fifty-six degrees, shall pay a duty of eight cents per gallon.]

Sulphur, lac or precipitated, and sulphur of brimstone, crude, in bulk, sulphur ore, as pyrites, or sulphuret of iron in its natural state, containing in excess of twenty-five per centum of sulphur (except on the copper contained therein) and sulphur not otherwise provided for. [Old law: Sulphur, or brimstone, not especially enumerated or provided for in this act; sulphur, lac or precipitated, free.]

Sulphuric acid, which at the temperature of 60 degrees Fahrenheit does not exceed the specific gravity of one and three hundred and eighty thousandths, for use in manufacturing superphosphate of lime or artificial manures of any kind or for any agricultural purposes. [Old law: Free under general provision for acid.]

Sweepings of silver and gold.

Tapioca, cassava or cassady.

Tar and pitch of wood and pitch of coal tar. [Old law: Wood tar, ten per centum; coal tar, crude, ten per centum ad valorem.]

Tea and tea plants.

Teeth, *natural or* unmanufactured.

Terra alba. [Word aluminous omitted.]

Terra japonica.

Tin ore, cassiterite or black oxide of tin, and tin in bars, blocks, pigs or grain or granulated, until July the first, 1893, and thereafter as otherwise provided for in this act.

Tinsel wire, lame or lahn.

Tobacco stems. [Old law: Fifteen cents per pound.]

Tonquin, tonqua or tonka beans.

Tripoli.

Turmeric

Turpentine, Venice.

Turpentine, sprits of. [Old law: Twenty cents per gallon.]

Turtles.

Types, old and fit only to be remanufactured.

Uranium, oxide and salts of.

Vaccine virus

Valonia

Verdigris or subacetate of copper

Wafers, unmedicated.

Wax, vegetable or mineral.

Wearing apparel and other personal effects (not merchandise) of persons arriving in the United States, but this exemption shall not be held to include articles not actually in use and necessary and appropriate for the use of such persons for the purposes of their journey and present comfort and convenience, or which are intended for any other person or persons, or for sale: *Provided, however*, That all such wearing apparel and other personal effects as may have been once imported into the United States and subjected to the payment of duty, and which may have been actually used and taken or exported to foreign countries by the persons returning therewith to the United States, shall, if not advanced in value or improved in condition by any means since their exportation from the United States, be entitled to exemption from duty, upon their identity being established, under such rules and regulations as may be prescribed by the Secretary of the Treasury. [Old law: Wearing apparel, in actual use, and other personal effects (not merchandise), professional books, implements, instruments, and tools of trade, occupation or employment of persons arriving in the United States. But this exception shall not be construed to include machinery or other articles imported for use in any manufacturing establishment, or for sale.]

Whalebone, unmanufactured.

Wood—Logs and round unmanufactured timber, not specially enumerated or provided for in this act.

Firewood, handle bolts, heading bolts, stave bolts, shingle bolts, hop poles, fence posts, railroad ties, ship timber, and ship planking, not specially provided for in this act.

Woods—Namely, cedar, lignumvitæ, lancewood, ebony, box, granadilla, mahogany, rosewood, satinwood, and all *forms of* cabinet woods, in the log, rough or hewn, bamboo and rattan, unmanufactured; briar root or briar wood, and similar wood unmanufactured, or not further manufactured than cut into blocks suitable for the articles into which they are intended to be converted; bamboo, reeds, and sticks of partridge, hair wood, pimento, orange, myrtle, and other woods not otherwise specially provided for in this act, in the rough, or not further manufactured than cut into lengths suitable for sticks for umbrellas, parasols, sun-shades, whips, or walking-canes; and India malacca joints not further manufactured than cut into suitable lengths for the manufactures into which they are intended to be converted.

Works of art, the production of American artists residing temporarily abroad or other works of art, including pictorial paintings on glass, imported expressly for presentation to a national institution or to any State or municipal corporation or incorporated religious society, college, or other public institution, except stained or painted window-glass or stained or painted glass windows; but such exception shall be subject to such regulations as the Secretary of the Treasury may prescribe. [Old law: Works of art, painting, statuary, fountains and other works of art, the production of American artists. But the fact of such production must be verified by the certificate of a consul or minister of the United States indorsed upon the written declaration of the artist; paintings, statuary, fountains, and other works of art, imported expressly for presentation to national institutions, or to any State, or to any municipal corporation or religious corporation or society.]

Works of art, drawings, engravings, photographic pictures and philosophical and scientific apparatus brought by professional artists, lecturers, or scientists arriving from abroad for use by them temporarily for exhibition and illustration, promotion, and encouragement of art, science, or industry in the United States and not for sale, and photographic pictures, paintings, statuary, imported for exhibition by any association established in good faith and duly authorized under the laws of the United States or of any State, expressly and solely for the promotion and encouragement of science, art, or industry and not intended for sale, shall be admitted free of duty, under such regulations as the Secretary of the Treasury shall prescribe; but bonds shall be given for the payment to the United States of such duties as may be imposed by law upon any and all of such articles as shall not be exported within six months after such importation. *Provided*, That the Secretary of the Treasury may, in his discretion, extend such period for a further term of six months in cases where applications therefor shall be made.

Works of art, collections in illustration of the progress of the arts, science, or manufactures, photographs, works in terra cotta, parian, pottery or porcelain and artistic copies of antiquities in metal or other material, hereafter imported in good faith for permanent exhibition at a fixed place by any society or institution established for the encouragement of the arts or of science, and all like articles imported in good faith by any society or association for the purpose of erecting a public monument, and not intended for sale, nor for any other purpose than herein expressed, but bonds shall be given under such rules and regulations as the Secretary of the Treasury may prescribe, for the payment of lawful duties which may accrue should any of the articles aforesaid be sold, transferred, or used contrary to this provision, and such articles shall be subject, at any time, to examination and inspection by the proper officers

of the customs: *Provided*, That the privileges of this and the preceding section shall not be allowed to associations or corporations engaged in or connected with business of a private or commercial character.

Yams.

Zaffer.

Sec. 3. That with a view to secure reciprocal trade with countries producing the following articles, and for this purpose, on and after the first day of January, eighteen hundred and ninety-two, whenever and so often as the President shall be satisfied that the government of any country producing and exporting sugars, molasses, coffees, teas, and hides, raw and uncured, or any of such articles, imposes duties or other exactions upon the agricultural or other products of the United States, which in view of the free introduction of such sugar, molasses, coffee, tea, and hides into the United States he may deem to be reciprocally unequal and unreasonable, he shall have the power and it shall be his duty to suspend, by proclamation to that effect, the provisions of this act relating to the free introduction of such sugar, molasses, coffee, tea, and hides, the production of such country, for such time as he shall deem just, and in such case and during such suspension duties shall be levied, collected, and paid upon sugar, molasses, coffee, tea, and hides, the product of or exported from such designated country, as follows—namely:

All sugars not above number thirteen Dutch standard in color shall pay duty on their polariscopic tests as follows, namely:

All sugars not above number thirteen Dutch standard in color, all tank bottoms, sirups of cane juice or of beet juice, melada, concentrated melada, concrete and concentrated molasses, testing by the polariscope not above seventy-five degrees, seven-tenths of one cent per pound, and for every additional degree or fraction of a degree shown by the polariscopic test, two hundredths of one cent per pound additional.

All sugars above number thirteen Dutch standard in color shall be classified by the Dutch standard of color and pay duty as follows—namely: All sugar above number thirteen and not above number sixteen Dutch standard of color, one and three-eighths cents per pound.

All sugar above number sixteen and not above number twenty Dutch standard of color, one and five-eighths cents per pound.

All sugar above number twenty Dutch standard of color, two cents per pound.

Molasses testing above fifty-six degrees, four cents per gallon.

Sugar drainings and sugar sweepings shall be subject to duty either as molasses or sugar, as the case may be, according to polariscopic test.

On coffee, three cents per pound.

On tea, ten cents per pound.

Hides, raw or uncured, whether dry, salted or pickled. Angora goat-skins, raw, without the wool, unmanufactured, asses' skins, raw or unmanufactured, and skins, except sheep-skins, with the wool on, one and one-half cents per pound. [Section 3 is new matter.]

Sec. 4. That there shall be levied, collected and paid on the importation of all raw or unmanufactured articles, not enumerated or provided for in this act, a duty of ten per centum ad valorem; and on all articles manufactured, in whole or in part, not provided for in this act, a duty of twenty per centum ad valorem. [Old law: Ammonia, aqua or water of, twenty per centum. Ammonia, anhydrous, liquefied by pressure, twenty per centum. Coal-tar, products of, such as naptha, benzine, benzole, dead oil and pitch, twenty per centum ad valorem. All non-dutiable crude minerals, but which have been advanced in value or condition by refining or grinding, or by other process of manufacture, not specially enumerated or provided for in this act, ten per centum. Candles and tapers of all kinds, twenty per centum.

Sec. 5. That each and every imported article, not enumerated in this act, which is similar, either in material, quality, texture, or the use to which it may be applied, to any article enumerated in this act as chargeable with duty shall pay the same rate of duty which is levied on the enumerated article which it most resembles in any of the particulars before mentioned; and if any non-enumerated article equally resembles two or more enumerated articles on which different rates of duty are chargeable there shall be levied on such non-enumerated article the same rate of duty as is chargeable on the article which it resembles paying the highest rate of duty; and on articles not enumerated, manufactured of two or more materials, the duty shall be assessed at the highest rate at which the same would be chargeable if composed wholly of the component material thereof of chief value; and the words "component material of chief value," wherever used in this act, shall be held to mean that component material which shall exceed in value any other single component material of the article; and the value of each component material shall be determined by the ascertained value of such material in its condition as found in the article. If two or more rates of duty shall be applicable to any imported article, it shall pay duty at the highest of such rates. [Old law: Sec. 2,499. There shall be levied, collected and paid on each and every non-enumerated article which bears a similitude either in material, quality, texture, or the use to which it may be applied, to any article enumerated in this title as chargeable with duty, the same rate of duty which is levied and charged on the enumerated article which it most resembles in any of the particulars before mentioned; and if any non-enumerated article equally resembles two or more enumerated articles on which different rates of duty are chargeable, there shall be levied, collected, and paid on such non-enumerated article the same rate of duty as is chargeable upon the article which it resembles paying the highest duty; and on all articles manufactured from two or more materials the duty shall be assessed at the highest rates at which the component material of chief value may be chargeable. If two or more rates of duty should be applicable to any imported article, it shall be classified for duty under the highest of such rates. *Provided*, That non-enumerated articles similar in material and quality and texture, and the use to which they may be applied, to articles on the free list, and in the manufacture of which no dutiable materials are used, shall be free.]

Sec. 6. That on and after the first day of March, eighteen hundred and ninety-one, all articles of foreign manufacture, such as are usually or ordinarily marked, stamped, branded, or labeled, and all packages containing such or other imported articles, shall, respectively, be plainly marked, stamped, branded, or labeled in legible English words, so as to indicate the country of their origin; and unless so marked, stamped, branded or labeled they shall not be admitted to entry. [Section 6 is new matter.]

Sec. 7. That on and after March first, eighteen hundred and ninety-one, no article of imported merchandise which shall copy or simulate the name or trade-mark of any domestic manufacture or manufacturer, shall be admitted to entry at any custom house of the United States. And in order to aid the officers of the customs in enforcing this prohibition any domestic manufacturer who has adopted trade-marks may require his name and residence and a description of his trade-marks to be recorded in books which shall be kept for that purpose in the Department of the Treasury under such regulations as the Secretary of the Treasury shall prescribe, and may furnish to the Department fac-similes of such trade-marks; and thereupon the Secretary of the Treasury shall cause one or more copies of the same to be transmitted to each collector or other proper officer of the customs. [Old law: Sec. 2,496. No watches, watch-cases, watch-movements, or parts of watch-movements, or any other articles of foreign manufacture, which shall copy or simulate the name or trade-mark of any domestic manufacture (manufacturer), shall be admitted to entry at the custom house of the United States, unless such domestic manufacturer is the importer of the same. And in order to aid the officers of the customs in enforcing this prohibition, any domestic manufacturer who has adopted trade-marks may require his name and residence and a description of his trade-marks to be recorded in books which shall be kept for that purpose in the Department of the Treasury, under such regulations as the Secretary of the Treasury shall prescribe, and may furnish to the Department fac-similes of such trade-marks; and thereupon the Secretary of the Treasury shall cause one or more copies of the same to be transmitted to each collector or other proper officer of the customs.]

Sec. 8. That all lumber, timber, hemp, manila *wire ropes* and iron and steel rods, bars, spikes, nails, *plates, tees, angles, beams*, and bolts and copper and composition metal which may be necessary for the construction and equipment of vessels built in the United States *for foreign account and ownership or* for the purpose of being employed in the foreign trade, including the trade between the Atlantic and Pacific ports of the United States; after the passage of this act, may be imported in bond under such regulations as the Secretary of the Treasury may prescribe; and upon proof that such materials have been used for such purpose no duties shall be paid thereon. But vessels receiving the benefit of this section shall not be allowed to engage in the coastwise trade of the United States more than two months in any one year, except upon the payment to the United States of the duties on which a rebate is herein allowed: *Provided, That vessels built in the United States for foreign account and ownership shall not be allowed to engage in the coastwise trade of the United States.*

Sec. 9. That all articles of foreign production needed for the repair of American vessels engaged in foreign trade, *including the trade between the Atlantic and Pacific ports of the United States*, may be withdrawn from bonded warehouses free of duty, under such regulations as the Secretary of the Treasury may prescribe.

Sec. 10. That all medicines, preparations, compositions, perfumery, cosmetics, cordials and other liquors manufactured wholly or in part of domestic spirits, intended for exportation, as provided by law, in order to be manufactured and sold or removed, without being charged with duty and without having a stamp affixed thereto, shall, under such regulations as the Secretary of the Treasury may prescribe be made and manufactured in warehouses similarly constructed to those known and designated in Treasury regulations as bonded warehouses, class two: *Provided*, That such manufacturer shall first give satisfactory bonds to the collector of internal revenue for the faithful observance of all the provisions of law, and the regulations as aforesaid, in amount not less than half of that required by the regulations of the Secretary of the Treasury from persons allowed bonded warehouses. Such goods, when manufactured in such warehouses, may be removed for exportation under the direction of the proper officer having charge thereof, who shall be designated by the Secretary of the Treasury, without being charged with duty, and without having a stamp affixed thereto. Any manufacturer of the articles aforesaid, or any of them, having such bonded warehouse as aforesaid, shall be at liberty under such regulations as the Secretary of the Treasury may prescribe, to convey therein any materials to be used in such manufacture which are allowed by the provisions of law to be exported free from tax or duty, as well as the necessary materials, implements, packages, vessels, brands, and labels for the preparation, putting up, and export of the said manufactured articles; and every article so used shall be exempt from the payment of stamp and excise duty by such manufacturer. Articles and materials so to be used may be transferred from any bonded warehouse in which the same may be, under such regulation as the Secretary of the Treasury may prescribe, into any bonded warehouse in which such manufacture, may be conducted and may be used in such manufacture, and when so used shall be exempt from stamp and excise duty; and the receipt of the officer in charge as aforesaid shall be received as a voucher for the manufacture of such articles. Any materials imported into the United States may, under such rules as the Secretary of the Treasury may prescribe, and under the direction of the proper officer, be removed in original packages from on shipboard, or from the bonded warehouse in which the same may be, into the bonded warehouse in which such manufacture may be carried on, for the purpose of being used in such manufacture, without payment of duties thereon, and may there be used in such manufacture. No article so removed, nor any article manufactured in said bonded warehouse, shall be taken therefrom except for exportation, under the direction of the proper officer having charge thereof as aforesaid, whose certifi-

cate, describing the articles by their mark or otherwise, the quantity, the date of importation, and name of vessel, with such additional particulars as may from time to time be required, shall be received by the collector of customs in cancellation of the bond or return of the amount of foreign import duties All labor performed and services rendered under these regulations shall be under the supervision of an officer of the customs, and at the expense of the manufacturer. [Some change in text.]

Sec. 11. All persons are prohibited from importing into the United States from any foreign country any obscene book, pamphlet, paper, writing, advertisement, circular, print, picture, drawing or other representation, figure or image on or of paper or other material, or any cast, instrument or other article of an immoral nature, or any drug or medicine, or any article whatever, for the prevention of conception, or for causing unlawful abortion. No such articles, whether imported separately or contained in packages with other goods entitled to entry, shall be admitted to entry; and all such articles shall be proceeded against, seized and forfeited by due course of law. All such prohibited articles and the package in which they are contained in the course of importation shall be detained by the officer of customs, and proceedings taken against the same as prescribed in the following section, unless it appears to the satisfaction of the collector of customs that the obscene articles contained in the package were inclosed therein without the knowledge or consent of the importer, owner, agent or consignee: *Provided*, That the drugs hereinbefore mentioned, when imported in bulk and not put up for any of the purposes hereinbefore specified are excepted from the operation of this section. [Note—Changes text of sections 2,491, 2,492, 2,493, Revised Statutes.]

Sec. 12. That whoever, being an officer, agent or employe of the government of the United States, shall knowingly aid or abet any person engaged in any violation of any of the provisions of law prohibiting importing, advertising, dealing in, exhibiting or sending or receiving by mail obscene or indecent publications, or representations, or means for preventing conception or procuring abortion, or other articles of indecent or immoral use or tendency, shall be deemed guilty of a misdemeanor, and shall for every offence be punishable by a fine of not more than five thousand dollars, or by imprisonment at hard labor for not more than ten years, or both.

Sec. 13. That any judge of any district or circuit court of the United States, within the proper district, before whom complaint in writing of any violation of the two preceding sections is made, to the satisfaction of such judge, and founded on knowledge or belief, and if upon belief, setting forth the grounds of such belief, and supported by oath or affirmation of the complainant, may issue conformably to the constitution, a warrant directed to the marshal or any deputy marshal, in the proper district, directing him to search for, seize and take possession of any such article or thing mentioned in the two preceding sections, and to make due and immediate return thereof to the end that the same may be condemned and destroyed by proceedings, which shall be conducted in the same manner as other proceedings in the case of municipal seizure, and with the same right of appeal or writ of error.

Sec. 14. That machinery for repair may be imported into the United States without payment of duty, under bond, to be given in double the appraised value thereof, to be withdrawn and exported after said machinery shall have been repaired, and the Secretary of the Treasury is authorized and directed to prescribe such rules and regulations as may be necessary to protect the revenue against fraud, and secure the identity and character of all such importations when again withdrawn and exported, restricting and limiting the export and withdrawal to the same port of entry where imported, and also limiting all bonds to a period of time of not more than six months from the date of the importation.

Sec. 15. That the produce of the forests of the State of Maine upon the St John river and its tributaries, owned by American citizens, and sawed or hewed in the province of New Brunswick by American citizens, the same being unmanufactured in whole or in part, when a new admitted into the ports of the United States free of duty, shall continue to be so admitted under such regulations as the Secretary of the Treasury shall from time to time, prescribe

Sec. 16. That the produce of the forests of the State of Maine upon the St Croix river and its tributaries owned by American citizens, and sawed in the Province of New Brunswick by American citizens, the same being unmanufactured in whole or in part, shall be admitted into the ports of the United States free of duty, under such regulations as the Secretary of the Treasury shall, from time to time, prescribe

Sec. 17. That a discriminating duty of ten per centum ad valorem, in addition to the duties imposed by law, shall be levied, collected and paid on all goods, wares or merchandise which shall be imported in vessels not of the United States; but this discriminating duty shall not apply to goods, wares and merchandise which shall be imported in vessels not of the United States, entitled, by treaty or any act of congress, to be entered in the ports of the United States on payment of the same duties as shall then be paid on goods, wares and merchandise imported in vessels of the United States.

Sec. 18. That no goods, wares or merchandise, unless in cases provided for by treaty, shall be imported into the United States, from any foreign port or place, except in vessels of the United States, or in such foreign vessels as truly and wholly belong to the citizens or subjects of that country of which the goods are the growth, production or manufacture, or from which such goods, wares or merchandise can only be, or most usually are, first shipped for transportation. All goods, wares or merchandise imported contrary to this section, and the vessel wherein the same shall be imported, together with her cargo, tackle, apparel and furniture, shall be forfeited to the United States; and such goods, wares or merchandise, ship or vessel and cargo shall be liable to be seized, prosecuted and condemned, in like manner and under the same regulations, restrictions and provisons as have been heretofore established for the recovery, collection, distribution and remission of forfeitures to the United States by the several revenue laws.

Sec. 19. That the preceding section shall not apply to vessels or goods, wares or merchandise imported in vessels of a foreign nation which does not maintain a similar regulation against vessels of the United States.

Sec. 20. That the importation of neat cattle and the hides of neat cattle from any foreign country into the United States is prohibited: *Provided*, That the operation of this section shall be suspended as to any foreign country or countries, or any parts of such country or countries, whenever the Secretary of the Treasury shall officially determine, and give public notice thereof that such importation will not tend to the introduction or spread of contagious or infectious diseases among the cattle of the United States, and the Secretary of the Treasury is hereby authorized and empowered, and it shall be his duty, to make all necessary orders and regulations to carry this section into effect, or to suspend the same as therein provided, and to send copies thereof to the proper officers in the United States, and to such officers or agents of the United States in foreign countries as he shall judge necessary

Sec. 21. That any person convicted of a willful violation of any of the provisions of the preceding section shall be fined not exceeding five hundred dollars, or imprisoned not exceeding one year, or both, in the discretion of the court

Sec. 22. That upon the reimportation of articles once exported of the growth, product or manufacture of the United States, upon which no internal tax has been assessed, or paid, or upon which such tax has been paid and refunded by allowance or drawback, there shall be levied, collected and paid a duty equal to the tax imposed by the internal-revenue laws upon such articles, *except articles manufactured in bonded warehouses and exported pursuant to law, which shall be subject to the same rate of duty as if originally imported.*

Sec. 23. That whenever any vessel laden with merchandise in whole or in part subject to duty has been stuck in any river, harbor, bay or water subject to the jurisdiction of the United States, and within its limits, for the period of two years, and is abandoned by the owner thereof, any person who may raise such vessel shall be permitted to bring any merchandise recovered therefrom into the port nearest to the place where such vessel was so raised, free from the payment of any duty thereupon, and without being obliged to enter the same at the custom house, but under such regulations as the Secretary of the Treasury may prescribe.

Sec. 24. That the works of manufacturers engaged in smelting or refining metals in the United States may be designated as bonded warehouses under such regulations as the Secretary of the Treasury may prescribe. *Provided*, That such manufacturers shall first give satisfactory bonds to the Secretary of the Treasury Metals in any crude form requiring smelting or refining to make them readily available in the arts, imported into the United States to be smelted or refined and intended to be exported in a refined but unmanufactured state, shall, under such rules as the Secretary of the Treasury may prescribe and under the direction of the proper officer be removed in original packages or in bulk from the vessel or other vehicle on which it has been imported, or from the bonded warehouse in which the same may be, into the bonded warehouse in which such smelting and refining may be carried on, for the purpose of being smelted and refined without payment of duties thereon, and may there be smelted and refined together with other metals of home or foreign production: *Provided*, That each day a quantity of refined metal equal to the amount of imported metal refined that day shall be set aside, and such metal so set aside shall not be taken from said works except for exportation, under the direction of the proper officer having charge thereof as aforesaid, whose certificate, describing the articles by their marks or otherwise, the quantity, the date of importation and the name of vessel or other vehicle by which it was imported, with such additional particulars as may from time to time be required, shall be received by the collector of customs as sufficient evidence of the exportation of the metal, or it may be removed, under such regulations as the Secretary of the Treasury may prescribe, to any other bonded warehouse, or upon entry for, and payment of duties for domestic consumption. All labor performed and services rendered under these regulations shall be under the supervision of an officer of the customs to be appointed by the Secretary of the Treasury and at the expense of the manufacturer. [Note—New provision.]

Sec. 25. That where imported materials, on which duties have been paid, are used in the manufacture of articles manufactured or produced in the United States, there shall be allowed on the exportation of such articles a drawback equal in amount to the duties paid on the materials used, less one per centum of such duties. *Provided*, That when the articles exported are made in part from domestic materials, the imported materials, or the parts of the articles made from such materials shall so appear in the completed articles that the quantity or measure thereof may be ascertained. *And provided further*, That the drawback on any article allowed under existing law shall be continued at the rate herein provided That the imported materials used in the manufacture or production of articles entitled to drawback of customs duties when exported shall in all cases where drawback of duties paid on such materials is claimed, be identified, the quantity of such materials used and the amount of duties paid thereon shall be ascertained, the facts of the manufacture or production of such articles in the United States and their exportation therefrom shall be determined, and the drawback due thereon shall be paid to the manufacturer, producer or exporter, or to the agent of either or to the person to whom such manufacturer, producer, exporter or agent shall in writing order such drawback paid, under such regulations as the Secretary of the Treasury shall prescribe. [This is an enlargement of the provisions of sections 3,019 and 3,020 Revised Statutes.]

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For the Use of the Farmer, Mechanic and Business Man.

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For Computing the Price of Cattle, Hogs, Cotton, or Any Commodity Sold by the Hundred or Part of the Hundred.

If the desired amount or quantity is not in the table, add two numbers together.

	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.	$ Cts.
LBS.	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4	5	5 1/4	5 1/2	5 3/4
1	.02	.02	.02	.03	.03	.03	03	.04	04	.04	.04	.05	.05	.05	05	.06
2	.04	04	05	.05	.06	.06	.07	07	08	.08	.09	.09	.10	.10	11	11
3	06	.07	.07	.08	09	.10	10	.11	.12	.13	.13	.14	.15	.16	.16	.17
4	08	09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	22	.23
5	.10	.11	12	.14	.15	.16	.17	.19	.20	.21	.22	.24	.25	.26	27	.29
6	.12	.13	.15	.16	.18	.19	.21	.22	.24	.25	.27	.28	.30	.31	33	.34
7	.14	.16	.17	.19	21	23	.24	.26	.28	.30	.31	.33	.35	.37	.38	.40
8	.16	18	20	.22	.24	.26	.28	.30	.32	.34	.36	.38	.40	.42	.44	.46
9	18	.20	.22	.25	.27	29	.31	.34	36	.38	.40	.43	.45	.47	.49	.52
10	20	.22	.25	.27	.30	.32	35	.37	40	.42	.45	.47	.50	.52	.55	.57
20	40	45	50	.55	.60	.65	70	.75	80	.85	.90	.95	1 00	1 05	1 10	1 15
30	60	.67	75	.82	.90	.97	1 05	1 12	1 20	1 27	1 35	1 42	1 50	1 57	1 65	1 72
40	.80	90	1 00	1 10	1 20	1 30	1 40	1 50	1 60	1 70	1 80	1 90	2 00	2 10	2 20	2 30
50	1 00	1 12	1 25	1 37	1 50	1 62	1 75	1 87	2 00	2 12	2 25	2 37	2 50	2 62	2 75	2 87
60	1 20	1 35	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	3 00	3 15	3 30	3 45
70	1 40	1 57	1 75	1 92	2 10	2 27	2 45	2 62	2 80	2 97	3 15	3 32	3 50	3 67	3 85	4 02
80	1 60	1 80	2 00	2 20	2 40	2 60	2 80	3 00	3 20	3 40	3 60	3 80	4 00	4 20	4 40	4 60
90	1 80	2 02	2 25	2 47	2 70	2 92	3 15	3 37	3 60	3 82	4 05	4 27	4 50	4 72	4 95	5 17
100	2 00	2 25	2 50	2 75	3 00	3 25	3 50	3 75	4 00	4 25	4 50	4 75	5 00	5 25	5 50	5 75
200	4 00	4 50	5 00	5 50	6 00	6 50	7 00	7 50	8 00	8 50	9 00	9 50	10 00	10 50	11 00	11 50
300	6 00	6 75	7 50	8 25	9 00	9 75	11 50	11 25	12 00	12 75	13 50	14 25	15 00	15 75	16 50	17 25
400	8 00	9 00	10 00	11 00	12 00	13 00	14 00	15 00	16 00	17 00	18 00	19 00	20 00	21 00	22 00	23 00
500	10 00	11 25	12 50	13 75	15 00	16 25	17 50	18 75	20 00	21 25	22 50	23 75	25 00	26 25	27 50	28.75
600	12 00	13 50	15 00	16 50	18 00	19 50	21 00	22 50	24 00	25 50	27 00	28 50	30 00	31 50	33.00	34.50
700	14 00	15 75	17 50	19 25	21 00	22 75	24 50	26 25	28 00	29 75	31 50	33 25	35 00	36 75	38 50	40 25
800	16 00	18 00	20 00	22 00	24 00	26 00	28 00	30 00	32 00	34 00	36 00	38 00	40 00	42 00	44 00	46 00
900	18 00	20 25	22 50	24 75	27 00	29 25	31 50	33 75	36 00	38 25	40 50	42 75	45 00	47 25	49 50	51 75
1,000	20 00	22 50	25 00	27 50	30 00	32 50	35 00	37 50	40 00	42 50	45 00	47 50	50 00	52 50	55 00	57 50
1,100	22 00	24.75	27 50	30 25	33 00	35 75	38.50	41 25	44 00	46 75	49 50	52 25	55 00	57 75	60 50	63 25
1,200	24 00	27 00	30 00	33 00	36 00	39.00	42 00	45 00	48 00	51 00	54 00	57 00	60 00	63 00	66 00	69 00
1,300	26 00	29 25	32 50	35 75	39 00	42 25	45 50	48 75	52 00	55 25	58 50	61 75	65 00	68 25	71 50	74 75
1,400	28 00	31 50	35 00	38 50	42 00	45 50	49 00	52 50	56 00	59 50	63 00	66 50	70 00	73 50	77 00	80 50
1,500	30 00	33 75	37 50	41.25	45 00	48 75	52 50	56 25	60 00	63 75	67 50	71 25	75 00	78 75	82 50	86 25
1,600	32 00	36 00	40 00	44 00	48 00	52 00	56 00	60 00	64 00	68 00	72.00	76 00	80 00	84 00	88 00	92 00
1,700	34 00	38 25	42 50	46 75	51 00	55 25	59 50	63 75	68 00	72 25	76 50	80 75	85 00	89 25	93 50	97 75
1,800	36 00	40 50	45 00	49 50	54 00	58 50	63 00	67 50	72 00	76.50	81 00	85 50	90 00	94 50	99 00	103 50
1,900	38 00	42.75	47 50	52 25	57 00	61.75	66.50	71.25	76 00	80 75	85 50	90 25	95 00	99 75	104 50	109 25
2,000	40 00	45 00	50 00	55 00	60 00	65 00	70 00	75 00	80 00	85 00	90 00	95 00	100 00	105 00	110.00	115 00
3,000	60 00	67 50	75 00	82 50	90 00	97 50	105 00	112 50	120 00	127 50	135 00	142 50	150 00	157 50	165 00	172 50
4,000	80 00	90 00	100 00	110 00	120 00	130 00	140 00	150 00	160 00	170 00	180 00	190 00	200 00	210 00	220 00	230 00
5,000	100 00	112 50	125 00	137 50	150 00	162 50	175 00	187 00	200 00	212 50	225 00	237 50	250 00	262 50	275 00	287 50

LBS.	6	6 1/4	6 1/2	6 3/4	7	7 1/4	7 1/2	7 3/4	8	8 1/4	8 1/2	8 3/4	9	9 1/4	9 1/2	9 3/4
1	06	06	06	.07	.07	.07	.07	08	.08	08	08	.09	.09	.09	09	.10
2	.12	12	13	.13	.14	.14	.15	.15	.16	.16	.17	17	18	.18	.19	.19
3	.18	.19	.19	.20	.21	.22	.22	.23	24	.25	25	26	.27	.28	.28	28
4	24	.25	26	.27	.28	.29	30	31	32	.33	34	35	.36	.37	.38	.39
5	30	.31	.32	34	35	36	37	39	.40	.41	.42	.44	.45	.46	.47	.49
6	.36	.37	39	40	.42	.43	.45	46	.48	.49	.51	.52	.54	.55	.57	.58
7	.42	.44	.45	.47	.49	.51	.52	54	.56	.58	59	.61	63	65	66	68
8	.48	50	52	.54	56	.58	.60	62	.64	66	68	.70	72	74	.76	.78
9	.54	56	58	.61	.62	65	67	70	.72	.74	.76	79	.81	.83	.85	.88

READY RECKONER.--Continued.

LBS.	$ Cts. 6	$ Cts. 6¼	$ Cts. 6½	$ Cts. 6¾	$ Cts. 7	$ Cts. 7¼	$ Cts. 7½	$ Cts. 7¾	$ Cts. 8	$ Cts. 8¼	$ Cts. 8½	$ Cts. 8¾	$ Cts. 9	$ Cts. 9¼	$ Cts. 9½	$ Cts. 9¾
10	60	62	65	67	70	72	75	77	80	82	85	87	90	92	95	97
20	1 20	1 25	1 30	1 35	1 40	1 45	1 50	1 55	1 60	1 65	1 70	1 75	1 80	1 85	1 90	1 95
30	1 80	1 87	1 95	2 02	2 10	2 17	2 25	2 32	2 40	2 47	2 55	2 62	2 70	2 77	2 85	2 92
40	2 40	2 50	2 60	2 70	2 80	2 90	3 00	3 10	3 20	3 30	3 40	3 50	3 60	3 70	3 80	3 90
50	3 00	3 12	3 25	3 37	3 50	3 62	3 75	3 87	4 00	4 12	4 25	4 37	4 50	4 62	4 75	4 87
60	3 60	3 75	3 90	4 05	4 20	4 35	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85
70	4 20	4 37	4 55	4 72	4 90	5 07	5 25	5 42	5 60	5 77	5 95	6 12	6 30	6 47	6 65	6 82
80	4 80	5 00	5 20	5 40	5 60	5 80	6 00	6 20	6 40	6 60	6 80	7 00	7 20	7 40	7 60	7 80
90	5 40	5 62	5 85	6 07	6 30	6 52	6 75	6 97	7 20	7 42	7 65	7 87	8 10	8 32	8 55	8 77
100	6 00	6 25	6 50	6 75	7 00	7 25	7 50	7 75	8 00	8 25	8 50	8 75	9 00	9 25	9 50	9 75
200	12 00	12 50	13 00	13 50	14 00	14 50	15 00	15 50	16 00	16 50	17 00	17 50	18 00	18 50	19 00	19 50
300	18 00	18 75	19 50	20 25	21 00	21 75	22 50	23 25	24 00	24 75	25 50	26 25	27 00	27 75	28 50	29 25
400	24 00	25 00	26 00	27 00	28 00	29 00	30 00	31 00	32 00	33 00	34 00	35 00	36 00	37 00	38 00	39 00
500	30 00	31 25	32 50	33 75	35 00	36 25	37 50	38 75	40 00	41 25	42 50	43 75	45 00	46 25	47 50	48 75
600	36 00	37 50	39 00	40 50	42 00	43 50	45 00	46 50	48 00	49 50	51 00	52 50	54 00	55 50	57 00	58 50
700	42 00	43 75	45 50	47 25	49 00	50 75	52 50	54 25	56 00	57 75	59 50	61 25	63 00	64 75	66 50	68 25
800	48 00	50 00	52 00	54 00	56 00	58 00	60 00	62 00	64 00	66 00	68 00	70 00	72 00	74 00	76 00	78 00
900	54 00	56 25	58 50	60 75	63 00	65 25	67 50	69 75	72 00	74 25	76 50	78 75	81 00	83 25	85 50	87 75
1,000	60 00	62 50	65 00	67 50	70 00	72 50	75 00	77 50	80 00	82 50	85 00	87 50	90 00	92 50	95 00	97 50
1,100	66 00	68 75	71 50	74 25	77 00	79 75	82 50	85 25	88 00	90 75	93 50	96 25	99 00	101 75	104 50	107 25
1,200	72 00	75 00	78 00	81 00	84 00	87 00	90 00	93 00	96 00	99 00	102 00	105 00	108 00	111 00	114 00	117 00
1,300	78 00	81 25	84 50	87 75	91 00	94 25	97 50	100 75	104 00	107 25	110 50	113 75	117 00	120 25	123 50	126 75
1,400	84 00	87 50	91 00	94 50	98 00	101 50	105 00	108 50	112 00	115 50	119 00	122 50	126 00	129 50	133 00	136 50
1,500	90 00	93 75	97 50	101 25	105 00	108 75	112 50	116 25	120 00	123 75	127 50	131 25	135 00	138 75	142 50	146 25
1,600	96 00	100 00	104 00	108 00	112 00	116 00	120 00	124 00	128 00	132 00	136 00	140 00	144 00	148 00	152 00	156 00
1,700	102 00	106 25	110 50	114 75	119 00	123 25	127 50	131 75	136 00	140 25	144 50	148 75	153 00	157 25	161 50	165 75
1,800	108 00	112 50	117 00	121 50	126 00	130 50	135 00	139 50	144 00	148 50	153 00	157 50	162 00	166 50	171 00	175 50
1,900	114 00	118 75	123 50	128 25	133 00	137 75	142 50	147 25	152 00	156 75	161 50	166 25	171 00	175 75	180 50	185 25
2,000	120 00	125 00	130 00	135 00	140 00	145 00	150 00	155 00	160 00	165 00	170 00	175 00	180 00	185 00	190 00	195 00
3,000	180 00	187 50	195 00	202 50	210 00	217 50	225 00	232 50	240 00	247 50	255 00	262 50	270 00	277 50	285 00	292 50
4,000	240 00	250 00	260 00	270 00	280 00	290 00	300 00	310 00	320 00	330 00	340 00	350 00	360 00	370 00	380 00	390 00
5,000	300 00	312 50	325 00	337 50	350 00	362 50	375 00	387 50	400 00	412 50	425 00	437 50	450 00	462 50	475 00	487 50

LBS.	10	10¼	10½	10¾	11	11¼	11½	11¾	12	12¼	12½	12¾	13	13¼	13½	13¾
1	.10	.10	.10	.11	.11	.11	.11	.12	.12	.12	.12	.13	.13	.13	.13	.14
2	.20	.20	.21	.21	.22	.22	.23	.23	.24	.24	.25	.25	.26	.26	.27	.27
3	.30	.31	.31	.32	.33	.34	.34	.35	.36	.37	.37	.38	.39	.40	.40	.41
4	.40	.41	.42	.43	.44	.45	.46	.47	.48	.49	.50	.51	.52	.53	.54	.55
5	.50	.51	.52	.54	.55	.56	.57	.59	.60	.61	.62	.64	.65	.66	.67	.69
6	.60	.61	.63	.64	.66	.67	.69	.70	.72	.73	.75	.76	.78	.79	.81	.82
7	.70	.72	.73	.75	.77	.79	.80	.82	.84	.86	.87	.89	.91	.93	.94	.96
8	.80	.82	.84	.86	.88	.90	.92	.94	.96	.98	1.00	1.02	1.04	1.06	1.08	1.10
9	.90	.92	.94	.97	.99	1.01	1.03	1.06	1.08	1.10	1.12	1.15	1.17	1.19	1.21	1.24
10	1.00	1.02	1.05	1.07	1.10	1.12	1.15	1.17	1.20	1.22	1.25	1.27	1.30	1.32	1.35	1.37
20	2.00	2.05	2.10	2.15	2.20	2.25	2.30	2.35	2.40	2.45	2.50	2.55	2.60	2.65	2.70	2.75
30	3.00	3.07	3.15	3.22	3.30	3.37	3.45	3.52	3.60	3.67	3.75	3.82	3.90	3.97	4.05	4.12
40	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00	5.10	5.20	5.30	5.40	5.50
50	5.00	5.12	5.25	5.37	5.50	5.62	5.75	5.87	6.00	6.12	6.25	6.37	6.50	6.62	6.75	6.87
60	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	7.50	7.65	7.80	7.95	8.10	8.25
70	7.00	7.17	7.35	7.52	7.70	7.87	8.05	8.22	8.40	8.57	8.75	8.92	9.10	9.27	9.45	9.62
80	8.00	8.20	8.40	8.60	8.80	9.00	9.20	9.40	9.60	9.80	10.00	10.20	10.40	10.60	10.80	11.00
90	9.00	9.22	9.45	9.67	9.90	10.12	10.35	10.57	10.80	11.02	11.25	11.47	11.70	11.92	12.15	12.37
100	10.00	10.25	10.50	10.75	11.00	11.25	11.50	11.75	12.00	12.25	12.50	12.75	13.00	13.25	13.50	13.75
200	20.00	20.50	21.00	21.50	22.00	22.50	23.00	23.50	24.00	24.50	25.00	25.50	26.00	26.50	27.00	27.50
300	30.00	30.75	31.50	32.25	33.00	33.75	34.50	35.25	36.00	36.75	37.50	38.25	39.00	39.75	40.50	41.25
400	40.00	41.00	42.00	43.00	44.00	45.00	46.00	47.00	48.00	49.00	50.00	51.00	52.00	53.00	54.00	55.00
500	50.00	51.25	52.50	53.75	55.00	56.25	57.50	58.75	60.00	61.25	62.50	63.75	65.00	66.25	67.50	68.75
600	60.00	61.50	63.00	64.50	66.00	67.50	69.00	70.50	72.00	73.50	75.00	76.50	78.00	79.50	81.00	82.50
700	70.00	71.75	73.50	75.25	77.00	78.75	80.50	82.25	84.00	85.75	87.50	89.25	91.00	92.75	94.50	96.25
800	80.00	82.00	84.00	86.00	88.00	90.00	92.00	94.00	96.00	98.00	100.00	102.00	104.00	106.00	108.00	110.00
900	90.00	92.25	94.50	96.75	99.00	101.25	103.50	105.75	108.00	110.25	112.50	114.75	117.00	119.25	121.50	123.75
1,000	100.00	102.50	105.00	107.50	110.00	112.50	115.00	117.50	120.00	122.50	125.00	127.50	130.00	132.50	135.00	137.50
1,100	110.00	112.75	115.50	118.25	121.00	123.75	126.50	129.25	132.00	134.75	137.50	140.25	143.00	145.75	148.50	151.25
1,200	120.00	123.00	126.00	129.00	132.00	135.00	138.00	141.00	144.00	147.00	150.00	153.00	156.00	159.00	162.00	165.00
1,300	130.00	133.25	136.50	139.75	143.00	146.25	149.50	152.75	156.00	159.25	162.50	165.75	169.00	172.25	175.50	178.75
1,400	140.00	143.50	147.00	150.50	154.00	157.50	161.00	164.50	168.00	171.50	175.00	178.50	182.00	185.50	189.00	192.50
1,500	150.00	153.75	157.50	161.25	165.00	168.75	172.50	176.25	180.00	183.75	187.50	191.25	195.00	198.75	202.50	206.25
1,600	160.00	164.00	168.00	172.00	176.00	180.00	184.00	188.00	192.00	196.00	200.00	204.00	208.00	212.00	216.00	220.00
1,700	170.00	174.25	178.50	182.75	187.00	191.25	195.50	199.75	204.00	208.25	212.50	216.75	221.00	225.25	229.50	233.75
1,800	180.00	184.50	189.00	193.50	198.00	202.50	207.00	211.50	216.00	220.50	225.00	229.50	234.00	238.50	243.00	247.50
1,900	190.00	194.75	199.50	204.25	209.00	213.75	218.50	223.25	228.00	232.75	237.50	242.25	247.00	251.75	256.50	261.25
2,000	200.00	205.00	210.00	215.00	220.00	225.00	230.00	235.00	240.00	245.00	250.00	255.00	260.00	265.00	270.00	275.00
3,000	300.00	307.50	315.00	322.50	330.00	337.50	345.00	352.50	360.00	367.50	375.00	382.50	390.00	397.50	405.00	412.50
4,000	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00	490.00	500.00	510.00	520.00	530.00	540.00	550.00
5,000	500.00	512.50	525.00	537.50	550.00	562.50	575.00	587.50	600.00	612.50	625.00	637.50	650.00	662.50	675.00	687.50

AN INSTANTANEOUS METHOD OF COMPUTING INTEREST.

To compute interest at three per cent, divide the figures in the six per cent table by two. To compute interest at eight per cent, double the figures in the four per cent table; at ten per cent, double the figures in the five per cent table; at nine per cent, make the computation at three per cent and multiply the result by three.

TABLES OF INTEREST.

AT FOUR PER CENT.

	DAYS.																											MONTHS.										Year.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	1	2	3	4	5	6	7	8	9	10	11	1
Am't.	INTEREST.																																						
$1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	2	3	3	3	4
$2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	3	4	4	5	6	6	7	8
$3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4	5	6	7	8	9	10	11	12
$4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	5	6	8	9	10	12	14	14	16
$5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	5	6	8	10	11	13	15	16	18	20
$6	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	4	5	8	10	12	14	16	18	20	22	24
$7	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	4	7	9	11	14	16	18	21	23	25	28
$8	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	5	8	10	13	16	18	21	24	27	29	32
$9	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	6	9	12	15	18	21	24	27	30	33	36
$10	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	6	10	13	16	20	23	26	30	33	37	40
$100	1	2	3	4	6	7	8	9	10	11	12	13	15	15	16	18	19	20	21	22	23	24	25	26	28	29	30	31	32	33	67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00
$1,000	11	22	33	44	56	66	78	89	1.00	1.11	1.22	1.33	1.44	1.56	1.67	1.78	1.89	2.00	2.11	2.22	2.33	2.44	2.56	2.67	2.78	2.89	3.00	3.11	3.22	3.33	6.67	10.00	13.33	16.67	20.00	23.33	26.67	30.00	33.33	36.67	40.00

AT FIVE PER CENT.

	DAYS.																											MONTHS.										Year
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	1	2	3	4	5	6	7	8	9	10	11	1
Am't.	INTEREST.																																						
$1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	3	3	4	4	4	5
$2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	3	4	5	6	6	7	8	9	10
$3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	5	6	7	9	10	11	12	14	15
$4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	5	6	8	10	11	13	15	16	18	20
$5	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	4	6	8	10	12	14	16	19	21	23	25
$6	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	5	7	10	12	15	17	20	22	25	27	30
$7	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	6	9	11	14	17	20	23	26	29	32	35
$8	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	6	10	13	16	20	23	27	30	33	37	40
$9	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	7	11	14	17	21	24	28	31	34	38	41
$10	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	8	12	16	21	25	29	33	37	42	46	50
$100	1	3	4	5	7	8	9	11	12	14	15	16	18	19	21	22	23	25	26	28	29	30	32	33	34	36	37	39	40	41	83	1.25	1.67	2.09	2.50	2.91	3.33	3.75	4.17	4.59	5.00
$1,000	14	28	41	55	70	83	97	1.11	1.25	1.39	1.53	1.66	1.80	1.94	2.08	2.22	2.36	2.50	2.64	2.78	2.91	3.05	3.20	3.33	3.47	3.61	3.75	3.89	4.03	4.16	8.33	12.50	16.67	20.83	25.00	29.16	33.33	37.50	41.67	45.83	50.00

AT SIX PER CENT.

	DAYS.																											MONTHS.										Year.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	1	2	3	4	5	6	7	8	9	10	11	1
Am't.	INTEREST.																																						
$1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	3	3	4	4	5	5	6	6
$2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	4	5	6	7	8	9	10	11	12
$3	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	5	6	8	9	11	12	14	15	17	18
$4	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	4	6	8	10	12	14	16	18	20	22	24
$5	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	3	5	8	10	13	15	18	20	23	25	28	30
$6	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	6	9	12	15	18	21	24	27	30	33	36
$7	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	7	11	14	18	21	25	28	32	35	39	42
$8	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	8	12	16	20	24	28	32	36	40	44	48
$9	0	0	0	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	9	14	18	23	27	32	36	41	45	50	54
$10	0	0	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	10	15	20	25	30	35	40	45	50	55	60
$100	2	3	5	7	8	10	12	13	15	17	18	20	22	23	25	27	28	30	32	33	35	37	38	40	42	43	45	47	48	50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00
$1,000	17	33	50	67	83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50	2.67	2.83	3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.17	4.33	4.50	4.67	4.83	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00

AT SEVEN PER CENT.

	DAYS.																											MONTHS.										Year.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	1	2	3	4	5	6	7	8	9	10	11	1
Am't.	INTEREST.																																						
$1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	3	4	4	5	5	6	7	7
$2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	5	6	7	8	9	11	12	13	14
$3	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	4	5	7	9	11	12	14	16	18	19	21
$4	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	5	7	9	12	14	16	19	21	23	26	28
$5	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	6	9	12	15	18	20	23	26	29	32	35
$6	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	7	11	14	18	21	25	28	32	35	39	42
$7	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	8	12	16	20	24	28	32	36	40	44	48
$8	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	5	9	14	18	23	27	32	36	41	45	50	54
$9	0	0	0	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	6	6	10	15	20	25	30	35	40	45	50	55	60
$10	0	0	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5	6	6	6	11	16	21	26	32	37	42	47	53	58	63
$100	2	4	6	8	10	12	14	16	18	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	54	56	58	1.17	1.75	2.33	2.92	3.50	4.08	4.67	5.25	5.83	6.42	7.00
$1,000	19	39	58	78	97	1.17	1.36	1.56	1.75	1.94	2.14	2.33	2.53	2.72	2.92	3.11	3.31	3.50	3.69	3.89	4.08	4.28	4.47	4.67	4.86	5.06	5.25	5.44	5.64	5.83	11.67	17.50	23.33	29.17	35.00	40.83	46.67	52.50	58.33	64.17	70.00

COTTON PICKER'S CALCULATOR.

Lbs.	Rate per Hundred Pounds.															
	30 cts	35 cts	40 cts	45 cts	50 cts	55 cts	60 cts	65 cts	70 cts	75 cts	80 cts	85 cts	90 cts	95 cts	1.00	1.25	1.50
1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3
3	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	4	4
4	1	1	2	2	2	2	2	3	3	3	3	3	4	4	4	5	6
5	1	2	2	2	2	3	3	3	3	4	4	4	5	5	5	6	7
6	2	2	2	3	3	3	4	4	4	4	5	5	5	6	6	7	9
7	2	2	3	3	3	4	4	5	5	5	6	6	6	7	7	9	10
8	2	3	3	4	4	4	5	5	6	6	6	7	7	8	8	10	12
9	3	3	4	4	4	5	5	6	6	7	7	8	8	9	9	11	13
10	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	12	15
15	4	5	6	7	7	8	9	10	10	11	12	13	13	14	15	19	22
20	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	25	30
25	7	9	10	11	12	14	15	16	17	19	20	21	22	24	25	31	37
30	9	10	12	13	15	16	18	19	21	22	24	25	27	28	30	37	45
35	10	12	14	16	17	19	21	23	24	26	28	30	31	33	35	44	52
40	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	50	60
45	13	16	18	20	22	25	27	29	31	34	36	38	40	43	45	56	67
50	15	17	20	22	25	27	30	32	35	37	40	42	45	47	50	62	75
55	16	19	22	25	27	30	33	36	38	41	44	47	49	52	55	69	82
60	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	75	90
65	19	23	26	29	32	36	39	42	45	49	52	55	58	62	65	81	97
70	21	24	28	31	35	38	42	45	49	52	56	59	60	66	70	87	1 05
75	22	26	30	34	37	41	45	49	52	56	60	64	67	71	75	94	1 12
80	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	1 00	1 20
85	25	30	34	38	42	47	51	55	59	64	68	72	76	81	85	1 06	1 27
90	27	31	36	40	45	49	54	58	63	67	72	76	81	85	90	1 12	1 35
95	28	33	38	43	47	52	57	62	66	71	76	81	85	90	95	1 19	1 42

SHORT INSURANCE RATES.

Policy for 1 year.	Policy for 2 years.	Policy for 3 years.	Policy for 4 years.	Policy for 5 years.	Charge this proportion of whole Premium.
1 mo.	2 mo.	3 mo.	4 mo.	5 mo.	20 per cent.
2 "	4 "	6 "	8 "	10 "	30 "
3 "	6 "	9 "	12 "	15 "	40 "
4 "	8 "	12 "	16 "	20 "	50 "
5 "	10 "	15 "	20 "	25 "	60 "
6 "	12 "	18 "	24 "	30 "	70 "
7 "	14 "	21 "	28 "	35 "	75 "
8 "	16 "	24 "	32 "	40 "	80 "
9 "	18 "	27 "	36 "	45 "	85 "
10 "	20 "	30 "	40 "	50 "	90 "
11 "	22 "	33 "	44 "	55 "	95 "

HOW INTEREST ACCUMULATES.

If one dollar be invested and the interest added to the principal, annually, at the rates named, we shall have the following result as the accumulation of one hundred years:

One Dollar 100 years, at 1 per cent	$2.75
" " 2 "	7.25
" " 2½ "	11.75
" " 3 "	19.25
" " 3½ "	31.25
" " 4 "	50.50
" " 4½ "	81.50
" " 5 "	131.50
" " 6 "	340.00
" " 7 "	868.00
" " 8 "	2,203.00
" " 9 "	5,543.00
" " 10 "	13,809.00
" " 12 "	34,675.00
" " 15 "	1,174,405.00
" " 18 "	15,145,007.00
" " 24 "	2,551,799,404.00

COMPOUND INTEREST TABLES.

YEARS	3 per cent.	4 per cent.	5 per cent.	6 per cent.	7 per cent.
1	1.03000	1.04000	1.05000	1.06000	1.070000
2	1.06090	1.08160	1.10250	1.12360	1.144900
3	1.09273	1.12486	1.15762	1.19102	1.225043
4	1.12551	1.16986	1.21551	1.26248	1.310796
5	1.15927	1.21665	1.27628	1.33823	1.402552
6	1.19405	1.26532	1.34010	1.41852	1.500730
7	1.22987	1.31593	1.40710	1.50363	1.605781
8	1.26677	1.36857	1.47745	1.59385	1.718186
9	1.30477	1.42331	1.55133	1.68948	1.838459
10	1.34392	1.48024	1.62889	1.79085	1.967151
11	138423	1.53945	1.71034	1.89830	2.104852
12	1.42576	1.00103	1.79586	2.01220	2.252192
13	1.46853	1.66507	1.88565	2.13293	2.409845
14	1.51259	173168	1 97993	2.26090	2.578534
15	1.55797	1.80094	2.07893	2.39656	2.759031
16	1.60471	187298	2.18287	2.54035	2.952164
17	1.65285	1.94790	2.29202	2.69277	3.158815
18	1.70243	2.02582	2.40662	2.85434	3.379931
19	1.75351	2.10685	2.52695	2.02560	3.616526
20	1.80611	2.19112	2.65330	3.20713	3.869684

EXAMPLE.—At 5 per cent compound interest what will $1,000 amount to in seven years? The table shows that $1 in seven years at 5 per cent compound interest amounts to $1.40710, which amount multiplied by 1,000 equals $1,407.10.

Time in which Money Doubles.

Per Cent.	Simple Int.	Comp. Int.	Per Cent.	Simple Int.	Comp. Int.
2	50 years.	35 years.	5	20 years.	14 yrs. 75 da.
2½	40 years.	28 yrs. 26 da.	6	16 yrs. 8 mos.	11 yrs. 327 da.
3	33 yrs. 4 mos.	23 yrs. 164 da.	7	14 yrs. 104 da.	10 yrs. 89 da.
3½	28 yrs. 208 da.	20 yrs. 54 da.	8	12½ years.	9 yrs. 2 days.
4	25 years.	17 yrs. 246 da.	9	11 yrs. 40 da.	8 yrs. 16 days.
4½	22 yrs. 81 da.	15 yrs. 273 da.	10	10 years.	7 yrs. 100 da.

Daily Savings at Compound Interest.

DAILY SAVINGS.	YEARLY.	TEN YEARS.	FIFTY YEARS
2¾ cents	$ 10	$ 130	$ 2,900
5½ "	20	260	5,800
8¼ "	30	390	8,700
11 "	40	520	11,600
13¾ "	50	650	14,500
27½ "	100	1,300	29,000
55 "	200	2,600	58,000
$1.10	400	5,200	116,000
1.37	500	6,500	145,000
2.74	1,000	13,000	290,000

SHORT INTEREST RULE.

To find the interest on a given sum for any number of days, at any rate of interest, multiply the principal by the number of days and divide as follows:

At 5 per cent, by	72	At 10 per cent, by	36
At 6 per cent, by	60	At 12 per cent, by	30
At 7 per cent, by	52	At 15 per cent, by	24
At 8 per cent, by	45	At 20 per cent, by	18
At 9 per cent, by	40		

A QUICK METHOD OF COMPUTING WAGES,

On a Basis of Ten Hours' Labor per Day.

HOURS.	$1.00	$1.50	$2.00	$2.50	$3.00	$3.50	$4.00	$4.50	$5.00	$5.50	$6.00	$6.50	$7.00	$7.50	$8.00	$9.00	$10	$11	$12
½	.01	.01½	.01⅔	.02	.02½	.03	.03⅓	.03¾	.04⅙	.04⅔	.05	.05½	.06	.06¼	.06⅔	.07½	.08⅓	.09	.10
1	.01⅔	.02¼	.03⅓	.04⅙	.05	.06	.06⅔	.07½	.08⅓	.09⅙	.10	.11	.11⅔	.12½	.13⅓	.15	.16⅔	.18½	.20
2	.03⅓	.05	.06⅔	.08⅓	.10	.11⅔	.13⅓	.15	.16⅔	.18⅓	.20	.21⅔	.23⅓	.25	.26⅔	.30	.33⅓	.36⅔	.40
3	.05	.07½	.10	.12½	.15	.17½	.20	.22½	.25	.27½	.30	.32½	.35	.37½	.40	.45	.50	.55	.60
4	.06⅔	.10	.13⅓	.16⅔	.20	.23⅓	.26⅔	.30	.33⅓	.36⅔	.40	.43⅓	.46⅔	.50	.53⅓	.60	.66⅔	.73⅓	.80
5	.08⅓	.12½	.16⅔	.21	.25	.29⅙	.33⅓	.37½	.41⅔	.46	.50	.54⅙	.58⅓	.62½	.66⅔	.75	.83⅓	.91⅔	1.00
6	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.90	1.00	1.10	1.20
7	.11⅔	.17½	.23⅓	.29⅙	.35	.41	.46⅔	.52½	.58⅓	.64⅙	.70	.76	.81⅔	.87½	.93⅓	1.05	1.16⅔	1.28½	1.40
8	.13⅓	.20	.26⅔	.33⅓	.40	.46⅔	.53⅓	.60	.66⅔	.73⅓	.80	.86⅔	.93⅓	1.00	1.06⅔	1.20	1.33⅓	1.46⅔	1.60
9	.15	.22½	.30	.37½	.45	.52½	.60	.67½	.75	.82½	.90	.97½	1.05	1.12½	1.20	1.35	1.50	1.65	1.80
DAYS.																			
1	.16⅔	.25	.33⅓	.41⅔	.50	.58⅓	.66⅔	.75	.83⅓	.91⅔	1.00	1.08⅓	1.16⅔	1.25	1.33⅓	1.50	1.66⅔	1 83⅓	2.00
2	.33⅓	.50	.66⅔	.83⅓	1.00	1.16⅔	1.33⅓	1.50	1.66⅔	1.83⅓	2.00	2.16⅔	2.33⅓	2.50	2.66⅔	3.00	3.33⅓	3.66⅔	4.00
3	.50	.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.50	5.00	5.50	6.00
4	.66⅔	1.00	1.33⅓	1.66⅔	2.00	2.33⅓	2.66⅔	3.00	3.33⅓	3.66⅔	4.00	4.33⅓	4.66⅔	5.00	5.33⅓	6.00	6.66⅔	7.33⅓	8.00
5	.83⅓	1.25	1.66⅔	2.08⅓	2.50	2.91⅔	3.33⅓	3.75	4.16⅔	4.58⅓	5.00	5.41⅔	5.83⅓	6.25	6.66⅔	7.50	8.33⅓	9.16⅔	10.00
6	1.00	1.50	2.00	2.50	3 00	3.50	4 00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	9.00	10.00	11.90	12.00

To find wages at **$13, $14, $15, $16,** or more, per week, find the amount at **$6.50, $7, $7.50, $8,** etc. and multiply by **2.**

EXPENSE OF BOARD PER DAY.

DAYS.	50c.	75c.	$1.00	$1.25	$1.50	$1.75	$2.00	$2.25	$2.50	$3.00	$3.50	$4.00	$4.50	$5.00	$6.00	$7.00	$8.00	$9.00	$10
1	.07	.11	.14	.18	.21	.25	.29	.32	.36	.43	.50	.57	.64	.71	.86	1.00	1.14	1.29	1.43
2	.14	.21	.29	.36	.43	.50	.57	.64	.71	.86	1.00	1.14	1.29	1.43	1.71	2.00	2.29	2.57	2.86
3	.21	.32	.43	.54	.64	.75	.86	.96	1.07	1.29	1.50	1.71	1.93	2.14	2.57	3.00	3.43	3.86	4.29
4	.29	.43	.57	.71	.86	1.00	1.14	1.29	1.43	1.71	2.00	2.29	2.57	2.86	3.43	4.00	4.57	5.14	5.71
5	.36	.54	.71	.89	1.07	1.25	1.43	1.61	1.79	2.14	2.50	2.86	3.21	3.57	4.29	5.00	5.71	6.43	7.14
6	.43	.64	.82	1.07	1.29	1.50	1.71	1.93	2.14	2.57	3.00	3.43	3.86	4.29	5.14	6.00	6.86	7.71	8.57
7	.50	.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	3.00	3.50	4.00	4.50	5.00	6.00	7.00	8.00	9.00	10.00

For rates not given in this table the result may be obtained by addition or multiplication.

LUMBER MEASURE.

LENGTH IN FEET.

	4 ft.	5 ft.	6 ft.	7 ft.	8 ft.	9 ft.	10 ft.	11 ft.	12 ft.	13 ft.	14 ft.	15 ft.	16 ft.	17 ft.	18 ft.	19 ft.	20 ft.	21 ft.	22 ft.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
3 inches wide...	1..00	1..03	1..06	1..09	2..00	2..03	2..06	2..09	3..00	3..03	3..06	3..09	4..00	4..03	4..06	4..09	5..00	5..03	5..06
4 inches wide...	1..04	1..08	2..00	2..04	2..08	3..00	3..04	3..08	4..00	4..04	4..08	5..00	5..04	5..07	6..00	6..04	6..08	7..00	7..05
5 inches wide...	1..08	2..01	2..06	2..11	3..04	3..09	4..02	4..07	5..00	5..05	5..10	6..03	6..08	7..01	7..03	7..11	8..04	8..09	9..02
6 inches wide...	2..00	2..06	3..00	3..06	4..00	4..06	5..00	5..06	6..00	6..06	7..00	7..06	8..00	8..06	9..00	9..06	10..00	10..06	11..00
7 inches wide...	2..04	2..11	3..06	4..01	4..08	5..03	5..10	6..05	7..00	7..07	8..02	8..09	9..04	9..11	10..06	11..01	11..08	12..03	12..10
8 inches wide...	2..08	3..04	4..00	4..08	5..04	6..00	6..08	7..04	8..00	8..08	9..04	10..00	10..08	11..04	12..00	12..08	13..04	14..00	14..08
9 inches wide...	3..00	3..09	4..09	5..03	6..00	6..09	7..06	8..03	9..00	9..09	10..06	11..03	12..00	12..09	13..06	14..03	15..00	15..09	16..06
10 inches wide...	3..04	4..02	5..06	5..10	6..08	7..06	8..04	9..02	10..00	10..10	11..08	12..06	13..04	14..02	15..00	15..10	16..08	17..06	18..04
11 inches wide...	3..08	4..07	5..00	6..05	7..04	8..03	9..02	10..01	11..00	11..11	12..10	13..09	14..08	15..07	16..06	17..05	18..04	19..03	20..00
12 inches wide...	4..00	5..00	6..00	7..00	8..00	9..00	10..00	11..00	12..00	13..00	14..00	15..00	16..00	17..00	18..00	19..00	20..00	21..00	22..00
13 inches wide...	4..04	5..05	6..00	7..07	8..08	9..09	10..10	11..11	13..00	14..01	15..02	16..03	17..04	18..05	19..06	20..07	21..08	22..09	23..10
14 inches wide...	4..08	5..10	7..00	8..02	9..04	10..06	11..08	12..10	14..00	15..02	16..04	17..06	18..08	19..10	21..00	22..02	23..04	24..06	25..08
15 inches wide...	5..00	6..03	7..00	8..09	10..00	11..03	12..06	13..09	15..00	16..03	17..06	18..09	20..00	21..03	22..06	23..09	25..00	26..03	27..06
16 inches wide...	5..04	6..08	8..00	9..04	10..08	12..00	13..04	14..08	16..00	17..04	18..08	20..00	21..04	22..08	24..00	25..04	26..08	28..00	29..04
17 inches wide...	5..08	7..01	8..06	9..11	11..04	12..09	14..02	15..07	17..00	18..05	19..10	21..03	22..08	24..01	25..06	26..11	28..04	29..09	31..02
18 inches wide...	6..00	7..06	9..00	10..06	12..00	13..06	15..00	16..06	18..00	19..06	21..00	22..06	24..00	25..06	27..00	28..06	30..00	31..06	33..00
19 inches wide...	6..04	7..11	9..06	11..01	12..08	14..03	15..10	17..05	19..00	20..07	22..02	23..09	25..04	26..11	28..06	30..01	31..08	33..03	34..10
20 inches wide...	6..08	8..04	10..00	11..08	13..04	15..00	16..08	18..04	20..00	21..08	23..04	25..00	26..08	28..04	30..00	31..08	33..04	35..00	36..08
21 inches wide...	7..00	8..09	10..06	12..03	14..00	15..09	17..06	19..03	21..00	22..09	24..06	26..03	28..00	29..09	31..06	33..03	35..00	36..09	38..06
22 inches wide...	7..04	9..02	11..00	12..10	14..08	16..06	18..04	20..02	22..00	23..10	25..08	27..06	29..04	31..02	33..00	34..10	36..08	38..06	40..04
23 inches wide...	7..08	9..07	11..06	13..05	15..04	17..03	19..02	21..01	23..00	24..11	26..10	28..09	30..08	32..07	34..06	36..05	38..04	40..03	43..02
24 inches wide...	8..00	0..00	12..00	14..00	16..00	18..00	20..00	22..00	24..00	26..00	28..00	30..00	32..00	34..00	36..00	38..00	40..00	42..00	44..00
25 inches wide...	8..04	0..05	12..06	14..07	16..08	18..09	20..10	22..11	25..00	27..01	29..02	31..03	33..04	35..05	37..06	39..07	41..08	43..09	45..10
26 inches wide...	8..08	0..10	13..00	15..02	17..04	19..06	21..08	23..10	26..00	28..02	30..04	32..06	34..08	36..10	39..00	41..02	43..04	45..06	47..08
27 inches wide...	9..00	1..03	13..06	15..09	18..00	20..03	22..06	24..09	27..00	29..03	31..06	33..09	36..00	38..03	40..06	42..09	45..00	47..03	49..06
28 inches wide...	9..04	1..08	14..00	16..04	18..08	21..00	23..04	25..08	28..00	30..04	32..08	35..00	37..04	39..08	42..00	44..04	46..08	49..00	51..04
29 inches wide...	9..08	2..01	14..06	16..11	19..04	21..09	24..02	26..07	29..00	31..05	33..10	36..03	38..08	41..01	43..06	45..11	48..04	50..09	53..02
30 inches wide...	10..00	2..06	15..00	17..06	20..00	22..06	25..00	27..06	30..00	32..06	35..00	37..06	40..00	42..06	45..00	47..06	50..00	52..06	55..00

EXPLANATION. — To ascertain the number of feet multiply the number of feet in length by the number of inches in width, and divide the product by **12**; the result will be the number in feet and inches. Thus, multiply **9** inches wide by **26** feet long, and the result will be **234.** Divide this by **12** and we have the product **19** feet and **6** inches.

PRACTICAL CALCULATIONS

To Measure Wells or Cisterns.

Square the diameter in inches, multiply by the decimal .7854, and the product by the depth of the well or cistern in inches. The result will be the full capacity of the well in cubic inches. If the actual quantity of water be sought, multiply by the depth of water in inches, and in either case divide by 231 for the number of gallons.

Circular Cisterns, One Foot in Depth, Computed.

DIAMETER IN INCHES.	CONTENTS IN GALLONS.	DIAMETER IN INCHES.	CONTENTS IN GALLONS.
12	5.875	18	13.218
15	9.18	20	16.32
16	10.44	21	18.

For any greater depth than one foot, multiply by the number of feet and fractions of a foot. As the areas of circles, and consequently the capacities of circular cisterns of equal depth, vary as the squares of their diameters, it is unnecessary to multiply calculations. For instance, should it be required to find the contents of a circular cistern of two feet in diameter, say as the square of 1: to the square of 2: 5.875, that is, as 1 : 4 :: 5.875, and $5.875 \times 4 = 23.5 =$ the contents of such cistern. This formula will apply to any diameter: for three feet, multiply by 9: for four feet, multiply by 16, etc.: for 5, by 25.

The Amount of Rainfall on a Building.

In this calculation the amount of annual rainfall is assumed to be thirty-six inches, which is about the average for the Northern States. Find the area covered by the building, in square inches. Multiply it by 36, the depth of rainfall; divide the product by 231, the cubic inches in a gallon, and the quotient will be the number of gallons of water shed by the roof in one year.

The Diameter of a Circular Cistern that will Contain the Rainfall on a Building.

The side of a square is to the diameter of a circle of equal area as 1:1.128. The square root of the area of the building, multiplied by 1.128, will be the required diameter, assuming depth of cistern and rainfall to be equal. Allowance must of course be made for greater or less depth of cistern than three feet, as well as for daily or occasional use of rainwater.

The Per Cent of Profit or Loss.

Add two ciphers to the difference between the cost and selling price, divide by the cost, and the quotient will be the gain or loss per cent.

Weights of Hay by Measurement.

Four hundred cubic feet of dry meadow hay are estimated at one ton weight. The actual measurement to make a ton will be modified by the density of the volume of hay, the pressure it has been subjected to as in a large or long-standing stack, and the like. In barns the volume is variously estimated from 400 to 550, according to coarseness and the length of time it has been piled up. Find the cubic contents by measuring the three dimensions of the pile in feet, and divide by 400, 450, 500 or 550 (according to circumstances, as explained), and the quotient will be the number of tons, approximately.

Weights of Cattle by Measurement.

To find the approximate weight, measure as follows: 1. The girth behind the shoulders. 2. The length from the fore part of the shoulder-blade along the back to the bone at the tail, in a vertical line with the buttocks. Then multiply the square of the girth, in feet, by five times the length, in feet. Divide the product by 1 5 for average cattle (if cattle be very fat, by 1.425; if very lean, by 1 575,: and the quotient will be the dressed weight of the quarters. Thus: The girth of a steer is 6.5 feet, and the length from the shoulder-blade to the tail-bone is 5 25. The square of 6.5 is 42.25, and 5 times 5.25 is 26.25. Multiplying these together gives 1109 0625, which, when divided by 1 5, produces 739 375 lbs., the approximate net weight of the steer after being dressed.

The Number of Shingles Required for a Roof.

Multiply the length of the ridge-pole by twice the length of the rafter, and the product by eight if the shingle is to be exposed 4½ inches to the weather, and by 7 1-5 if exposed five inches.

The Number of Square Yards in a Floor or Wall.

Multiply the length and width of the floor, or height and width of the wall, in feet and fractions of a foot, divide by nine, and the quotient is the number of square yards.

The Number of Bricks Required for a Building.

The average brick is eight inches long, four inches wide, and two inches thick, or 64 (8 × 4 × 2) cubic inches. 1728 cubic inches make one cubic foot, and 27 bricks make 1728 (64 × 27) cubic inches. In laying bricks, 1-6 is allowed for mortar, or 4½ out of every 27, leaving 22½ actual bricks for each cubic foot. Therefore, multiply the dimensions—length, height and thickness—in feet and fraction of a foot, of the several brick walls, and the product by 22½, and the result will be the number of bricks required. Multiply by 20, instead of 22½, if the bricks are larger than the average above given. Allowance should be made for chimneys, projections for mantels, and the like, on the same basis.

The Number of Perches of Stone Required for a Wall or Cellar.

The perch of stone is now commonly taken at a perch, or 16.5 feet in length, by 1.5 feet in width and 1 foot in height, or 24.75 (16.5 × 1.5 × 1) cubic feet. Of this amount one ninth, 2 75 cubic feet, is allowed for mortar and filling. Multiply the three dimensions of the wall or walls in feet—width, height and thickness—and divide by 22 (24.75—2.75) if the needed quality of stone is the subject of enquiry, or by 24 75 if it be sought to ascertain the amount of masonry in the wall or cellar.

The Number of Feet, Board Measure, in a Lot of Boards, Planks, Flooring, Scantling, Joists, Sills or Beams.

The foot of board measure is a superficial or square foot, one inch thick. Multiply the product of the width and thickness of each board, plank or other article, in inches, by the length in feet and fractions of a foot, divide by 12, and the quotient will be the number of feet of board measure. In flooring, allowance must be made for rabbeting, the proportion varying with the depth of the groove and the width of the boards.

The Cubic Feet in Squared Timber or Beams.

Multiply as in board measure, but divide by 144 instead of 12, or multiply the three dimensions in feet and fractions of a foot.

The Number of Cubic Feet in a Round Log of Uniform Diameter.

Square the diameter, in inches, multiply by .7854, and multiply this product by the length in feet, divide by 144, and the quotient is the number of cubic feet.

Estimate of the Number of Cubic Feet in the Trunk of a Standing Tree.

Find the circumference in inches, divide by 3.1416, square the quotient, multiply by the length in feet, divide by 144, deduct about one-tenth for thickness of bark, and the result will be, approximately, the number of cubic feet.

The Number of Feet, Board Measure, in a Log of Unequal Diameters.

Square the smallest diameter in inches, multiply by .7854, and the product by the length of the log in feet, divide by 12, and the quotient will be the number of feet of board measure, approximately.

The Area of a Circle.

Of all plane figures, the circle is the most capacious, or has the greatest area within the same limits. It is geometrically demonstrable that it has the same area as a right-angled triangle with a base equal to its circumference, and a perpendicular equal to its radius, that is, half the product of the radius and circumference. It is obviously larger than any figure, of however many sides, inscribed within its perimeter, and smaller than any circumscribed polygon. As a result of laborious calculations on this basis (pushed in one instance to 600 places of decimals without reaching the end), it has been ascertained that the ratio of the diameter to the circumference of any circle (sufficiently exact for all practical purposes), is as 1:3.1416 (3.141592653×) or in whole numbers, approximately, as 7:22, or more nearly as 113:355. Hence, to find the circumference or diameter, the other quantity being known, multiply or divide by 3.1416; and to find the area, multiply half the diameter by half the circumference, or the square of the diameter by .7854 (3.1416 ÷4).

Capacity or Contents of a Granary, Bin, Crib or Wagon.

Multiply the three dimensions—the length, width and depth—in feet (the inches, if any, being reduced to fractions of a foot), multiply the product by the decimal .803564—or deduct one-fifth, which is sufficiently exact for ordinary purposes—and the result is the number of bushels. Where the wagon or crib flares considerably in length or width, it will be necessary to obtain a mean dimension. This is done by taking the longest and shortest measures, with one or more intermediate ones, and dividing the sum of all by the number taken. The quotient will be the mean dimension sought. The greater the flare the larger the number of intermediate dimensions that should be taken to insure accuracy. Corn in the ear, when first cribbed, is estimated at twice the bulk of shelled corn.

To Measure Corn or Similar Commodity on a Floor.

Pile up the commodity in the form of a cone; find the diameter in feet; multiply the square of the diameter by .7854, and the product by one-third the height of the cone in feet; from this last product deduct one-fifth of itself, or multiply it by .803564, and the result will be the number of bushels.

To Measure Casks or Barrels.

Find mean diameter by adding to head diameter two-thirds (if staves are but slightly curved, three-fifths) of difference between head and bung diameters, and dividing by two. Multiply square of mean diameter in inches by .7854, and the product by the height of the cask in inches. The result will be the number of cubic inches. Divide by 231 for standard or wine gallons, and by 282 for beer gallons.

The Number of Cords in a Pile of Wood.

A cord of wood is four feet wide, four feet high and eight feet long, or 128 (4×4×8) cubic feet. Multiply the three dimensions—length, height and width—of the pile in feet, divide by 128, and the quotient will be the number of cords. The odd inches in any or all of the three dimensions must be reduced to decimals or common fractions of a foot, before beginning to multiply.

Contents of Fields and Lots.

The following table will assist farmers in making an accurate estimate of the amount of land in different fields under cultivation:

10 rods	×	16 rods	=	1	A.	100 feet	×	108 $\frac{9}{10}$ feet	=	¼	A.
8 "	×	20 "	=	1	"	25 "	×	100 "	=	.0574	"
5 "	×	32 "	=	1	"	25 "	×	110 "	=	.0631	"
4 "	×	40 "	=	1	"	25 "	×	120 "	=	.0688	"
5 yards	×	968 "	=	1	"	25 "	×	125 "	=	.0717	"
10 "	×	484 yards	=	1	"	25 "	×	150 "	=	.109	"
20 "	×	242 "	=	1	"	2178 square feet			=	.05	"
40 "	×	121 "	=	1	"	4356 " "			=	.10	"
80 "	×	60½ "	=	1	"	6534 " "			=	.15	"
70 "	×	69½ "	=	1	"	8712 " "			=	.20	"
220 feet	×	198 feet	=	1	"	10890 " "			=	.25	"
440 "	×	99 "	=	1	"	13068 " "			=	.30	"
110 "	×	396 "	=	1	"	15246 " "			=	.35	"
60 "	×	726 "	=	1	"	17424 " "			=	.40	"
120 "	×	363 "	=	1	"	19603 " "			=	.45	"
240 "	×	181½ feet	=	1	"	21780 " "			=	.50	"
200 "	×	108 $\frac{9}{10}$ "	=	½	"	32670 " "			=	.75	"
100 "	×	145 $\frac{2}{10}$ "	=	⅓	"	34848 " "			=	.80	"

Boxes of Different Measure.

A box 24 inches long by 16 inches wide, and 28 inches deep, will contain a barrel (3 bushels).

A box 24 inches long by 16 inches wide, and 14 inches deep, will contain half a barrel.

A box 16 inches square and 8 2-5 inches deep will contain one bushel.

A box 16 inches by 8 2-5 inches wide, and 8 inches deep, will contain half a bushel.

A box 8 inches by 8 2-5 inches square, and 8 inches deep, will contain one peck.

A box 8 inches by 8 inches square, and 4 1-5 inches deep, will contain one gallon.

A box 7 inches by 4 inches square, and 4 4-5 inches deep, will contain half a gallon.

A box 4 inches by 4 inches square, and 4 1-5 inches deep, will contain one quart.

In purchasing anthracite coal, 20 bushels are generally allowed for a ton.

A Key to the Metric System.

It may not be generally known that we have in the nickel five-cent piece of our coinage a key to the tables of linear measures and weights. The diameter of this coin is two centimeters, and its weight is five grammes. Five of them placed in a row will, of course, give the length of the decimeter; and two of them will weigh a decagramme. As the kiloliter is a cubic meter, the key to the measure of length is also the key to the measures of capacity. Any person, therefore, who is fortunate enough to own a five-cent nickel, may carry in his pocket the entire metric system of weights and measures.

Comparison of Thermometric Scales.

To convert the degrees of Centigrade into those of Fahrenheit, multiply by 9, divide by 5, and add 32.

To convert degrees of Centigrade into those of Reaumur, multiply by 4 and divide by 5.

To convert degrees of Fahrenheit into those of Centigrade, deduct 32, multiply by 5, and divide by 9.

To convert degrees of Fahrenheit into those of Reaumur, deduct 32, divide by 9, and multiply by 4.

To convert degrees of Reaumur into those of Centigrade, multiply by 5, and divide by 4.

To convert degrees of Reaumur into those of Fahrenheit, multiply by 9, divide by 4, and add 32.

In De Lisle's thermometer, used in Russia, the gradation begins at boiling point, which is marked zero, and the freezing point is 150.

STANDARD WEIGHTS AND MEASURES.

AVOIRDUPOIS WEIGHT.

16 drachms.....1 ounce (oz.), = 28.35 gr'm's.
16 ounces .....1 pound (lb.), = 453.6 "
25 pounds.....1 quarter
4 quarters.....1 hundredw't. "
20 hundred-w't. 1 ton, 2,000 pounds.

The standard avoirdupois pound of the United States, copied from the British standard, is 0.00734 grain too heavy. The gramme is legal at 15.432 grains, and the kilogramme at 2.2046 pounds. In some States the ton rates at 2,240 pounds. In that case, the quarter, of course, consists of 28 lbs., or 2 stone.

TROY WEIGHT.

24 grains .....1 pennyweight (dwt).
20 pennyweights.....1 ounce, = 480 grains.
12 ounces .....1 pound, = 5,760 grains.

Gold, silver, platinum, and some gems, are weighed by this scale. Pearls and diamonds are weighed by the carat of 4 grains, 5 diamond grains being equal to 4 grains troy.

APOTHECARIES' WEIGHT.

20 grains.....1 scruple.
3 scruple.....1 drachm.
8 drachms* .....1 ounce.
12 ounces*.....1 pound.
* Same as in troy weight, as is also the grain.

LINEAR MEASURE.

3 barleycorns .....1 inch.
7.92 inches.....1 link.
12 inches .....1 foot, = 0.3047 metre.
3 feet .....1 yard, = 0.91438 metre.
5½ yards .....1 rod, perch, or pole.
4 poles, or 100 links 1 chain.
10 chains .....1 furlong.
8 furlongs .....1 mile = 1.6093 kilom'rs.
3 miles .....1 league.

1 line .....1/12 inch.
1 nail (cloth measure) .....2¼ inches.
1 palm.....3 "
1 hand (used for h'ht of horses).4 "
1 span .....9 "
1 cubit .....18 "
1 pace (military).....2 ft. 6 inches.
1 pace (geometrical).....5 feet.
1 Scotch ell .....37.06 inches.
1 English ell.....45 "
1 fathom .....6 feet.
1 cable's length .....120 fathoms.
1 league .....3 miles.
1 degree of the equator.....69.1613 miles, or 60 nautical knots or geographical miles.
1 degree of meridian.....69.046 miles.

SQUARE OR SURFACE MEASURE.

144 square inches ..1 sq. foot, = 9.29 square decimetres.
9 " feet.....1 sq. yard, = 0.836 square metre.
30¼ " yards ..1 square rod.
16 " rods ...1 chain.
40 " " ...1 rood.
4 roods .....1 acre, or 43,560 sq. ft.
640 acres .....1 sq. mile, = 259 hectares.
The acre = 0.405 hectare.

CUBIC OR SOLID MEASURE.

1728 cubic inches.....1 cubic foot.
27 " feet.....1 " yard.
40 " " of rough, or
50 " ft. of hewn timber } 1 ton or load.
42 " feet of timber.....1 British shipping ton.
40 cubic feet..... 1 American shipping ton.
108 cubic feet.....1 stack wood.
128 " " .....1 cord wood.

APOTHECARIES' MEASURE.

60 minims ....1 fluid drachm.
8 drachms ....1 " ounce.
20 ounces .....1 pint.
8 pints .....1 imperial gallon.

LIQUID MEASURE.

4 gills ....1 pint (pt.)
2 pints .....1 quart (qt.)
4 quarts .... 1 gallon (gal.)
42 gallons .....1 tierce.
63 " ... .1 hogshead (hhd.)
84 " ... .1 puncheon.
126 " .....1 pipe.
252 " .....1 ton.
10 " .....1 anker.
18 " .....1 runlet.
32* " ....1 barrel (bbl. or brl.)
* In some of the States 31½ gallons make a barrel.

DRY MEASURE.

The bushel is 2150.42 cubic inches, that of England being 2218.192 cubic inches. The imperial bushel is, therefore, 1.0315 United States bushels. In dry measure the litre is legal at 0.908 quart. The following table is generally used:

2 pints.....1 quart.
4 quarts ...1 gallon of 268.8 cubic inches.
2 gallons ..1 peck (pk.)
4 pecks....1 bushel (bush. or bu.)
36 bushels ..1 chaldron (for coke and coal).

CIRCULAR MEASURE.

60 seconds..... 1 minute.
60 minutes..... 1 degree.
360 degrees..... 1 circle.
30 degrees..... 1 sign of zodiac.
12 signs ..... 1 zodiac circle.
360 degrees, the circumference of the earth.
24,899 statute miles, circumference of the earth at the equator.
69.124 statute miles, 1 degree of the equator.
1.1527 statute miles, 1 geographic mile.
60 geographic miles, 1 degree.

MEASURES OF TIME.

60 seconds .....1 minute.
60 minutes .....1 hour.
24 hours .....1 day.
7 days .....1 week.
28 days .....1 lunar month.
28, 29, 30 or 31 days .....1 calendar month.
12 calendar months .....1 year.
365.25 days .....1 common year.
366 days .....1 leap year.

LONGITUDE AND TIME COMPARED.

LONGITUDE.	TIME.
1 second	.0666 second.
1 minute	4 seconds.
15 minutes	1 minute.
1 degree.....	4 minutes.
360 degrees	1 day.

Add difference of time for places east, and subtract for places west, of the given place.

ODD WEIGHTS.

14 pounds ..... 1 stone of iron or lead.
56 pounds ..... 1 firkin of butter.
100 pounds ..... 1 quintal of fish.
196 pounds ..... 1 barrel of flour.
200 pounds ..... 1 barrel of beef or pork.
250 pounds ..... 1 pig of iron or lead.

FOR HOUSEKEEPERS.

Wheat flour.....1 pound = 1 quart.
Indian meal.....1 pound 2 oz. = 1 "
Butter, when soft.....1 pound = 1 "
Loaf sugar, broken.....1 pound = 1 "
White sugar, pwd .1 pound 1 oz. = 1 "
Brown sugar.....1 pound 2 oz. = 1 "
Eggs.....10 eggs = 1 pound.
Flour.....8 quarts = 1 peck.
" .....4 pecks = 1 bushel.

LIQUIDS.

16 large tablespoonfuls .....½ pint.
8 " " .....1 gill.
4 " " .....½ gill.
2 gills.....½ pint.
2 pints .....1 quart.
4 quarts .....1 gallon.
1 common-sized tumbler holds ...½ pint.
1 " " wine-glass holds ½ gill.
25 drops are equal to .....1 teaspoonful.

LEGAL WEIGHT OF A BUSHEL IN ALL THE STATES.*

PRODUCT.	Alabama.	Arkansas.	California.	Colorado.	Connecticut.	Delaware.	Florida.	Georgia.	Illinois.	Indiana.	Iowa.	Kansas.	Kentucky.	Louisiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.	Nebraska.	Nevada.	New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.	Oregon.	Pennsylvania.	Rhode Island.	South Carolina.	Tennessee.	Texas.	Vermont.	Virginia.	West Virginia.	Wisconsin.	R. R. Weights. †
Apples	..	..	..	..	..	..	..	..	..	..	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45	..	..	..	..	..	..	..	..	..	57	56
Apples, Dried	24	24	..	..	..	..	..	25	24	25	24	24	24	..	..	28	..	22	28	..	24	24	..	..	25	22	..	22	28	24	..	26	26	28	..	..	25	26	24
Barley	48	48	50	48	48	..	..	40	48	48	48	50	47	32	48	48	48	48	48	..	48	48	50	..	48	48	48	48	46	47	48	48	48	48	48	48	48	48
Beans, Castor	46	46	..	..	..	..	..	46	46	46	46	46	45	..	..	46	..	46	46	..	46	46	..	..	..	46	..	46	..	46	..	46	..	..	64	..	..	46	46
Beans, White	60	60	..	60	60	..	..	..	60	60	60	60	60	..	64	62	..	60	60	..	60	60	..	60	60	62	..	60	..	60	..	60	60	60	..	60	60	60	60
Beets	..	..	..	..	60	..	..	..	60	60	60	..	..	..	..	..	..	60	60	..	60	..	..	..	..	60	..	60	..	..	..	..	..	..	..	..	..	59	..
Blackberries	..	..	..	..	..	..	..	..	..	..	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bran	24	..	..	..	..	..	..	..	20	20	20	20	20	..	..	..	..	20	20	..	20	..	..	..	..	20	..	20	..	20	..	20	20	20	..	..	20	20
Broomcorn Seed	..	..	..	..	..	..	..	..	46	46	30	..	..	..	..	..	..	46	46	..	46	..	..	..	..	46	..	46	..	..	..	..	..	..	..	..	..	46	..
Buckwheat	..	52	40	52	48	..	..	..	52	50	52	50	56	..	48	48	48	48	42	..	52	52	40	..	50	48	50	52	42	48	..	56	50	42	48	48	52	50	52
Carrots	..	..	..	..	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	50	..
Charcoal	..	..	..	..	..	..	..	..	22	22	22	..	..	..	..	..	..	22	20	..	22	..	..	..	..	22	..	22	..	..	..	..	..	..	22	..	..	22	22
Cherries	..	..	..	..	..	..	..	..	..	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coal	80	80	..	80	..	..	80	80	80	70	80	80	76	..	..	..	..	80	..	..	80	..	..	..	..	..	..	80	..	..	..	80	..	80	..	..	80	..	..
Coal, Cannel	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	70	..	..	..	..	..	..	..	..	..	..	..
Coal, mined out of State	..	..	..	..	..	..	..	..	..	80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coke	..	..	..	..	..	..	..	..	40	40	40	..	..	..	..	..	..	40	40	..	40	..	..	..	..	40	..	40	..	..	..	..	..	..	..	..	..	..	..
Corn, on cob	76	70	..	70	..	..	..	70	68	70	70	70	..	..	70	..	70	70	68	..	70	70	..	..	..	70	..	70	..	70	..	70	70	70	..	70	..	70	70
Corn, on cob (of previous year)	73	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	68	..	..	..	..	..	..	..	..	..	..	..
Cornmeal, unbolted	48	50	..	50	50	48	..	48	48	50	48	50	50	..	50	48	50	50	48	..	50	50	..	50	..	50	46	50	..	50	50	50	50	..	..	50	48	48	48
Cornmeal, bolted	46	..	..	..	..	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Corn, shelled	56	56	52	56	56	56	..	56	56	56	56	56	56	56	56	56	56	56	56	..	56	56	52	56	56	58	54	56	56	56	56	56	56	56	56	56	56	56
Corn, sweet	..	..	..	..	..	..	..	..	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cranberries	..	..	..	..	..	..	..	..	33	33	33	..	..	..	..	..	..	40	33	..	33	..	..	..	..	33	..	33	..	..	..	..	..	..	..	..	..	33	..
Cotton Seed	33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33	..	..	..	..	..	..	..	..	..	..	..	..	32	..	..	..	..	..
Currants	..	..	..	..	..	..	..	..	..	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Flaxseed	56	56	..	..	..	..	..	56	56	56	56	56	56	..	..	56	..	56	56	..	56	56	..	..	55	55	55	56	..	56	..	56	56	56	..	56	56	56	56
Gooseberries	..	..	..	..	..	..	..	..	..	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Grapes	..	..	..	..	..	..	..	..	..	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Grass Seeds :—																																						
Blue	10	14	..	14	..	..	..	..	14	14	14	14	14	..	..	14	..	14	14	..	14	14	..	..	..	14	..	14	..	..	..	14	14	..	..	14	..	14	..
Clover	60	60	..	60	..	..	..	60	60	60	60	60	60	..	64	64	..	60	60	..	60	60	..	..	64	60	64	60	60	62	..	60	..	60	60	64	60	60	60
Hungarian	..	48	..	..	..	..	..	..	48	48	45	55	50	..	..	48	..	50	48	..	48	60	..	..	..	48	..	50	..	..	..	60	48	48	..	..	..	48	45
Millet	..	50	..	..	..	..	..	..	50	50	45	55	50	..	..	50	..	50	50	..	30	40	..	..	..	50	..	50	..	..	..	50	50	50	..	..	..	50	45
Orchard	..	..	..	..	..	..	..	..	14	14	14	..	..	..	..	..	..	14	14	..	14	..	..	..	..	14	..	14	..	..	..	..	..	..	..	..	..	14	..
Red Top	..	..	..	..	..	..	..	..	14	14	14	..	..	..	..	..	..	14	14	..	14	..	..	..	..	14	..	14	..	..	..	..	..	..	..	..	..	14	..
Timothy	45	45	..	45	..	..	..	45	45	45	45	45	45	..	42	45	..	45	45	..	45	45	..	..	..	44	..	45	..	45	..	45	45	42	45	45	45	45
Hair, Plastering	7	8	..	..	..	..	..	..	8	8	8	8	8	..	11	7	..	8	..	..	9	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..
Hempseed	44	44	..	44	..	..	..	..	44	44	44	44	44	..	..	44	..	44	44	..	44	44	..	..	..	44	..	44	..	44	..	44	..	44	..	44	..	44	44
Hominy	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..
Lime	..	..	..	80	..	..	..	..	80	80	80	80	..	..	..	80	..	70	80	..	80	80	..	..	..	80	..	70	..	80	..	80	..	..	..	80	..	80	..
Malt, Barley	34	34	..	..	..	..	..	..	38	38	..	32	32	..	..	34	..	28	..	..	38	30	..	..	..	34	..	34	..	38	..	38	..	..	..	34	..	38	38
Malt, Rye	..	..	..	..	..	..	..	..	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mangel-wurzels	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Oats	32	32	32	32	32	..	..	35	32	33	33	32	32	32	30	32	32	32	32	..	32	34	32	32	30	32	30	32	36	30	32	33	32	32	32	32	32	32
Onions	57	57	..	57	50	..	..	57	57	48	57	57	57	..	52	57	52	54	56	..	57	57	..	..	57	57	..	56	..	57	50	57	56	57	54	56	..	50	57
Onion Sets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Onion Tops	..	..	..	..	..	..	..	..	28	28	28	..	..	..	..	..	..	28	28	..	28	..	..	..	..	28	..	25	..	..	..	..	..	..	..	..	..	28	..
Osage Orange	..	36	..	..	..	..	..	..	33	..	32	..	..	..	..	37	..	33	..	..	33	32	..	..	..	..	..	..	..	..	..	..	33	..	..	..	..	..	..
Parsnips	..	..	..	..	45	..	..	..	55	..	..	..	..	..	..	..	..	..	..	..	33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	44	..
Peaches	..	..	..	..	..	..	..	..	..	..	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Peaches, Dried	33	33	..	..	..	..	..	..	33	33	33	33	39	..	..	..	..	28	28	..	33	33	..	..	33	32	..	33	28	38	..	33	..	28	..	33	33	28	33
Peaches, Pared	..	..	..	..	..	..	..	..	40	33	33	..	..	..	..	40	..	28	..	..	33	..	..	..	..	28	..	36	..	..	..	..	..	..	..	..	..	28	..
Pears	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45	..	..	..	..	..	..	..	..	..	..
Peas	60	46	..	..	60	..	..	..	60	60	60	..	60	..	60	60	..	60	60	..	60	60	..	..	60	60	60	60	..	..	..	60	60	..	60	60	..	60	..
Peas, Ground	..	..	..	..	..	..	..	..	..	..	..	..	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plums, Dried	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Potatoes, Irish	60	60	..	60	60	..	..	56	60	60	60	60	60	..	60	60	60	60	60	..	60	60	60	60	60	60	..	60	60	56	60	60	60	60	60	60	60	60
Potatoes, Sweet	60	50	..	..	..	..	..	60	55	55	46	55	55	..	..	56	..	56	..	..	..	50	..	..	54	55	..	50	..	55	..	50	50	55	55	56	..	54	55
Popcorn	..	..	..	..	..	..	..	..	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Quinces	..	..	..	..	..	..	..	..	..	..	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rapeseed	..	..	..	..	..	..	..	56	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	50	..	..
Raspberries	..	..	..	..	..	..	..	..	..	..	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rutabagas	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	56	..
Rye	56	56	54	56	56	..	56	56	56	56	56	56	56	32	56	56	56	56	56	..	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
Salt, Coarse	50	50	..	80	..	..	..	56	50	50	50	50	50	..	80	70	..	56	50	..	50	50	..	..	85	50	..	50	..	85	..	50	70	50	70	55	..	50	..
Salt, Fine	50	..	..	..	..	..	..	56	55	50	50	50	55	..	..	55	..	56	50	..	50	50	..	..	..	50	..	59	..	62	..	..	..	50	..	50	..	66	56
Sorghum Seed	..	42	..	..	..	..	..	..	46	46	30	..	..	..	..	37	..	..	..	..	..	30	..	..	..	..	..	..	..	..	..	42	..	..	..	..	..	..	..
Strawberries	..	..	..	..	..	..	..	..	..	..	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Turnips	35	..	..	..	50	..	..	..	55	55	55	55	60	..	60	56	..	58	55	..	55	55	..	..	..	55	..	56	..	55	50	..	..	55	..	56	60	42	56
Wheat	60	60	60	60	60	60	..	60	60	60	60	60	60	60	60	60	60	60	60	..	60	60	60	60	60	60	60	60	60	60	..	60	..	60	60	60	60	60	60

* Local usage sometimes varies from legal enactment. All the States recognize the use of the standard U. S. bushel, without reference to weights of articles measured, and some of the States no longer legalize any other. † Used by railroad companies when it is not convenient to ascertain actual weights.

FOREIGN WEIGHTS AND MEASURES.

France.

I. Measure of Length.

1 Myriametre.. = 10,000 metres.
1 Kilometre ... = 1,000 metres.
1 Decametre... = 10 metres.
1 Metre..... = The 10,000,000th part of the quarter of the meridian of the earth.
1 Decimetre ... = 1-10th of a metre.
1 Centimetre... = 1-100th of a metre.
1 Millimetre ... = 1-1,000th of a metre.

II. Measure of Surface.

1 Hectare..... = 100 ares.
1 Are ..... = 100 square metres.
1 Centiare ..... = 1 square metre.

III. Measure of Solidity.

1 Stere..... = 1 cubic metre.
1 Decistere .... = 1-10th of a stere.

IV. Measure of Capacity.

1 Kilolitre..... = 1 cubic metre.
1 Hectolitre ... = 10 decalitres.
1 Decalitre .... = 10 litres.
1 Litre..... = 1 cubic decimetre.
1 Decilitre..... = 1-10th of a litre.

V. Measure of Weight.

1 Millia..... = 1,000 kilogrammes, and is the weight of a ton of sea-water.
1 Quintal..... = 100 kilogrammes.
1 Kilogramme = Weight of a cubic decimetre of water, at the temperature of 4° above melting ice, or about 40° Fahrenheit.
1 Hectogramme = 100 grammes.
1 Decagramme = 10 grammes.
1 Gramme..... = 1-1,000th of a kilogramme.
1 Decigramme. = 1-10th of a gramme.

These measures may be compared with the English measures by means of the following table:

1 Metre..... = 39.38 English inches, nearly.
1 Are..... = 3.9 English perches, nearly.
1 Stere..... = 35.32 English cubic feet.
1 Litre..... = 1.76 English pints.
1 Gramme.... = 15.44 English grains.

The French Metric System has been either introduced or legalized in the Argentine Confederation, Austria, Belgium, Bolivia, Brazil, Chili, Colombia, Ecuador, Egypt, the German Empire, Greece, Italy, Mexico, Portugal and Spain. The present system of Switzerland is upon a semi-metric basis. In the United States the metric system was legalized by an act of Congress passed in 1866.

Belgium.—The metrical system is used here; but the kilogramme is termed a livre; the litre, a litron; and the metre, an aune.

Netherlands.—Here, also, the metric system has been adopted; but Flemish names are employed instead of those used in France.

Lombardo-Venetian Kingdom.—The metric system, with Italian names substituted for the most of the original terms, is used officially; but the old measures are also used. See *Venice.*

Austria.—The ell = 30.6 inches. The joch = 1 acre 1.75 rood. The metzen = 1-7th bushel. The eimer = 12.4 gallons. The pfund = ½ pound. Gold and silver are weighed by the mark of Vienna, which = 4,333 grains.

Basle.—100 pounds = 108.6 pounds avoirdupois. The ohm = 10.7 gallons. The sack = 3.6 bushels. The large and small ells = 46.4 and 21.4 inches respectively.

Bavaria.—The long and short ells = 24 and 23.3 inches respectively. The schaff of 8 metzen = 5.6 bushels. The muid of 48 mass = 15 gallons. 100 pounds heavy and light weight = 108.3 and 104.2 pounds avoirdupois respectively. The mark of Augsburg = 3,043 grains.

Bremen.—The foot or half ell = 11.4 in. The ohm = 31.5 gallons. The last = 10.2 quarters. 100 pounds = 109.9 pounds avoirdupois.

Cape of Good Hope.—The centner or 100 pounds Dutch weight = 108.9 pounds avoirdupois. The leager of 15 ankers = 120.5 gallons. The muid = 3 bushels. The ell of 27 Rhynland inches = 27.8 inches.

China.—The chang of 10 chih = 4 yards, nearly. The shing = 1 pint. 10 ho = 1 shing; 10 shing = 1 tow; 10 tow = 1 hwuh or 120 catties. The catty = 1.33 pound avoirdupois. 16 taels = 1 catty; 100 catties = 1 pecul. Liquids are sold by weight; but the English gallon is used in trading with foreigners.

Denmark.—The foot = 12.3 inches. 100 ells = 68.6 yards. The viertel = 1.7 gallon. 100 tonnen = 47.8 quarters. The pound = 1.1 pound avoirdupois. The pound for gold and silver weighs 7,266 grains.

East Indies. — *Bengal.* — The factory maund = 74.66 pounds avoirdupois. 10 bazar maunds = 11 factory maunds. 16 chittacks = 1 seer; 40 seers = 1 maund. The guz of two cubits = 1 yard. *Bombay.*—The maund = 28 pounds avoirdupois. 40 seers = 1 maund; 20 maunds = 1 candy. The candy = 24.5 bushels. *Madras.*—The maund = 25 pounds avoirdupois. 40 pollams = 1 vi; 8 vis = 1 maund; 20 maunds = 1 candy. The covid = 18.6 inches. The gars of 80 parahs = 16.875 quarters, and weighs 8,400 pounds avoirdupois.

Egypt.—The Turkish pike = 27 in. The ardeb of 24 Cairo rubbie = 6 quarters. The cantar = 100 pounds avoirdupois. 216 drams or 144 meticals = 1 rottole. 100 rottoli or 36 okes = 1 cantar.

Frankfort on the Main.—The ell = 21.2 inches. The foot = 11.2 inches. The matter = 3 bushels, nearly. The viertel = 1.6 gallon, nearly. The pound, light and heavy weight, = 1.03 and 1.1 pound avoirdupois. The Zollcentner = 110.2 pounds avoirdupois. The Cologne mark, used for gold and silver, weighs 3,609 grains.

Geneva.—The ell = 45 inches. The acre = 1 acre 1.1 rood. The coupe, or sack, = 2.1 bushels. The setier = 10 gallons. The heavy pound = 1.2 pound avoirdupois; the light pound 1-6th less. The mark weighs 3,785 grains.

Genoa.—The braccio of 2.5 palmi = 22.9 inches. The mina = 3.3 bushels. The barile = 10.3 gallons. The pound = 0.7 pound avoirdupois. 1.5 pound = 1 rottole. The pound sottile, for gold and silver, weighs 4891.5 grains.

Greece.—The Venetian measures of length are used, the braccio being called a piche. 100 kila = 11.4 quarters. The cantaro of 40 okes = 112 pounds avoirdupois.

Hamburg.—The foot = 11.3 in. nearly; 100 ells = 62.6 yards. The scheffel = 1 acre 6 perches. The viertel = 1.0 gallon. The pound = 1.00 pound avoirdupois. For the Cologne mark, see *Frankfort.* 2 marks = 1 pound troy.

Lubeck.—The ell = 22.9 inches. The last = 11 quarters. The viertel = 1.6 gallon. The pound = 1.07 pounds avoirdupois, nearly.

Malta.—The palme = 10.25 inches; 3.5 palmi = 1 yard; 8 palmi = 1 canna. The salma = 7.8 bushels. The caffiso = 4.5 gallons. The barile = 9.33 gallons. 64 rottoli = 1 hundredweight. The cantaro = 175 pounds avoirdupois.

Mauritius.—Besides the English weights and measures, those of France before the late alteration are used. The aune = 1.3 yard. The velte = 1.7 gallon. The poid de marc = 1.08 pound avoirdupois.

Naples.—The canna = 83.2 inches. The moggia = 3 roods 12 perches. The tomolo = 1.4 bushel. The barile = 9.1 gallons. The **cantaro grosso and piccolo = 196.5 and 106** pounds avoirdupois, respectively. The pound used in weighing gold and silver contains 4,950 grains.

Portugal.—The covado = 25.8 inches. The almude = 3.6 gallons. The pound = 1.01 pound avoirdupois.

Prussia.—The ell = 26.5 inches. The morgen = 2 roods 21 perches. The scheffel = 1.5 bushel. The eimer = 15.1 gallons. The pound = 1.03 pound avoirdupois. The mark of Cologne is used for gold and silver.

Rome.—The canna of 8 palmi = 2.2 yards. The canna of 10 palma = 88 inches, nearly. The rubbio = 8.1 bushels. The boccale = 0.4 gallon. The pound = 0.7 pound avoirdupois.

Russia.—The arshine = 28 inches. The foot = 13.75 inches. The dessetnia = 2 acres 2.8 roods. The tschetwert = 5.7 bushels. The wedro = 2.7 gallons. The pound = 0.9 pound avoirdupois. The pood = 30 pounds avoirdupois.

St. Gallen.—The ells for silks and woolens = 31.5 and 24.25 inches, respectively. The mutt of 4 viertels = 2.09 bushels. The eimer = 11.25 gallons. The pound, light and heavy weight, = 1.03 and 1.3 pound avoirdupois, respectively.

Saxony.—The foot = 11.1 inches. The acre = 1 acre 1.5 rood, nearly. The eimer, at Dresden, = 14.0 gallons; at Leipsic = 10.8 gallons. The wispel, at Dresden, = 60.9 bushels; at Leipsic = 91.7 bushels. The pound = 1.03 pound avoirdupois.

Sicily.—The canna = 76.5 inches. The salma = 7.6 bushels. The barrel = 8 gallons, nearly. The pound of 12 ounces = 0.7 pound avoirdupois. The cantaro = 175 pounds avoirdupois.

Smyrna.—The pike = 27 inches. The killow = 11.3 gallons. The rottolo = 1.2 pound avoirdupois.

South America.—The Spanish and Portuguese measures are most generally employed. The use of the English prevails in some parts.

Spain.—The vara or ell = 33.3 inches. The fanegada = 1 acre 21 perches. The arroba = 3.5 gallons. The fanega = 1.5 bushel. The pound = 1.01 pound avoirdupois.

Sweden and Norway.—The ell = 23.3 inches. The tunneland = 1 acre 1 rood, nearly. The tunna = 0.6 quarter. The kann = 0.6 gallon. The pound = 0.9 pound avoirdupois.

Turkey.—The pike = 26.25 inches. The killow = 0.9 bushel. The almud = 1.1 gallon. The oke = 2.8 pounds avoirdupois. The rottolo = 1.3 pound avoirdupois.

Tuscany.—The braccio = 23 inches, nearly. The saccata = 1 acre 0.9 rood. The sacche = 2 bushels. The fiasche = 4 pints. The pound = 12 ounces avoirdupois.

Venice.—Besides the metrical system, the following measures are used: The braccio, for woolens = 26.6 inches; for silks = 24.8 inches. The staio = 2.2 bushels. The secchia = 2.4 gallons. The pound sottile = 0.7 pound avoirdupois, nearly; grosso = 1.05 pound avoirdupois.

THE METRIC SYSTEM.

The Metric System originated in France about 1790. In 1799, on the invitation of the Government, an international convention, at which were present representatives from France, Holland, Denmark, Sweden, Switzerland, Spain, Savoy and the Roman Republics, assembled at Paris to settle, from the results of the great Meridian Survey, the exact length of the "definitive metre." As a result of the investigations of this learned body, the Metric System was based upon the length of the fourth part of a terrestrial meridian. The ten-millionth part of this arc was chosen as the unit of measures of length, and called *Metre*. The cube of the tenth part of the metre was adopted as the unit of capacity, and denominated *Litre*. The weight of a litre of distilled water at its greatest density was called *Kilogramme*, of which the thousandth part, or *Gramme*, was adopted as the unit of weight. The multiples of these, proceeding in decimal progression, are distinguished by the employment of the prefixes *deca*, *hecto*, *kilo* and *myria* (ten, hundred, thousand, ten thousand), from the Greek, and the subdivisions by *deci*, *centi* and *milli* (tenth, hundredth, thousandth), from the Latin.

Measures of Length (Unit, Metre).

EQUAL TO	*Inches.*	*Feet.*	*Yards.*	*Fathoms.*	*Miles.*
Millimetre	0.03937	0.003281	0.0010936	0.0005468	0.0000006
Centimetre	0.39371	0.032809	0.0109363	0.0054682	0.0000062
Decimetre	3.93708	0.328089	0.1093633	0.0546816	0.0000621
METRE	39.37079	3.280988	1.0936331	0.5468165	0.0006214
Decametre	393.70790	32.809892	10.9363306	5.4681653	0.0062138
Hectometre	3,937.07900	328.089917	109.3633056	54.6816528	0.0621381
Kilometre	39,370.79000	3,280.899167	1,093.6330556	546.8165278	0.6213824
Myriametre	393,707.90000	32,808.991667	10,936.3305556	5,468.1652778	6.2138242

Cubic Measures, or Measures of Capacity (Unit, Litre).

EQUAL TO	*Cubic Inches.*	*Cubic Feet.*	*Pints.*	*Gallons.*	*Bushels.*
Millilitre, or cubic centimetre	0.06103	0.000035	0.00176	0.0002201	0.0000275
Centilitre, 10 cubic centimetres	0.61027	0.000353	0.01761	0.0022010	0.0002751
Decilitre, 100 cubic centimetres	6.10271	0.003532	0.17608	0.0220097	0.0027512
LITRE, or cubic Decimetre	61.02705	0.035317	1.76077	0.2200967	0.0275121
Decalitre, or Centistere	610.27052	0.353166	17.60773	2.2009668	0.2751208
Hectolitre, or Decistere	6,102.70515	3.531658	176.07734	22.0096677	2.7512085
Kilolitre, or Stere, or cubic metre	61,027.05152	35.316581	1,760.77341	220.0966767	27.5120846
Myrialitre, or Decastere	610,270.51519	353.165807	17,607.73414	2,200.9667675	275.1208459

Measures of Weight (Unit, Gramme).

EQUAL TO	*Grains.*	*Troy Oz.*	*Avoirdupois Lbs.*	*Cwt. of 112 Lbs.**	*Tons.**
Milligramme	0.01543	0.000032	0.0000022	0.0000000	0.0000000
Centigramme	0.15432	0.000322	0.0000220	0.0000002	0.0000000
Decigramme	1.54323	0.003215	0.0002205	0.0000020	0.0000001
GRAMME	15.43235	0.032151	0.0022046	0.0000197	0.0000010
Decagramme	154.32349	0.321507	0.0220462	0.0001968	0.0000098
Hectogramme	1,543.23488	3.215073	0.2204621	0.0019684	0.0000984
Kilogramme	15,432.34880	32.150727	2.2046213	0.0196841	0.0009842
Myriagramme	154,323.48800	321.507267	22.0462129	0.1968412	0.0098421

Square Measures, or Measures of Surface (Unit, Are).

EQUAL TO	*Sq. Feet.*	*Sq. Yards.*	*Sq. Perches.*	*Sq. Roods.*	*Sq. Acres.*
Centiare, or square metre	10.794299	1.196033	0.0395383	0.0009885	0.0002471
ARE, or 100 square metres	1,076.429934	119.603326	3.9538290	0.0988457	0.0247111
Hectare, or 10,000 square metres	107,642.993419	11,960.332602	395.382959	9.8845724	2.4711434

CONVERSION OF METRIC WEIGHTS AND MEASURES INTO ENGLISH.

METRES INTO YARDS.		KILOMETRES INTO MILES AND YARDS.			LITRES INTO GALLONS AND QUARTS.			HECTOLITRES INTO QUARTS AND BUSHELS.			KILOGRAMMES INTO CWTS., QRS., LBS., OZ.				HECTARES INTO ACRES, ROODS, P'CH'S.			
1	1.094	1		1,094	1	0	0.880	1	0	2.751	1	0	0	2	3¼	1		1	35
2	2.187	2	1	427	2	0	1.761	2	0	5.502	2	0	0	4	6½		4	3	31
3	3.281	1	1	1,521	3	0	2.641	3	1	0.254	3	0	0	6	9¾	3	7	1	26
4	4.374	4	2	855	4	0	3.521	4	1	3.005	4	0	0	8	13	4	9	3	22
5	5.468	5	3	188	5		0.402	5	1	5.756	5	0	1	11	0¼	5	12	1	17
6	6.562	6	3	1,282	6	1	1.282	6	2	0.507	6	0	0	13	3½	6	14	1	12
7	7.655	7	4	615	7	1	2.163	7	2	3.258	7	0	0	15	7	7	17	1	8
8	8.749	8	4	1,709	8	1	3.043	8	2	6.010	8	0	0	17	10¼	8	19	3	3
9	9.842	9	5	1,043	9	1	3.923	9	3	0.761	9	0	0	19	13¾	9	22	0	38
10	10.936	10	6	376	10	2	0.804	10	3	3.512	10	0	1	22	0¾	10	24	2	34
20	21.873	20	12	753	20	4	1.608	20	6	7.024	20	0	2	16	1½	20	49	1	28
30	32.809	30	18	1,129	30	6	2.412	30	10	2.536	30	0	2	10	2½	30	74	0	21
40	43.745	40	24	1,505	40	8	3.215	40	13	6.048	40	0	3	4	3	40	98	3	15
50	54.682	50	31	122	50	11	0.019	50	17	1.560	50	1	3	26	3¾	50	123	2	9
60	65.618	60	37	498	60	13	0.823	60	20	5.072	60	1	0	20	4¼	60	148	1	3
70	76.554	70	43	874	70	15	1.627	70	24	0.585	70	1	1	14	5¼	70	172	3	37
80	87.491	80	49	1,251	80	17	2.431	80	27	4.097	80	1	2	8	6	80	197	2	38
90	98.427	90	55	1,627	90	19	3.235	90	30	7.609	90	1	3	2	6½	90	222	1	24
100	109.363	100	62	243	100	22	0.039	100	34	3.121	100	1	3	24	7	100	247	0	18
200	218.727	200	124	487	200	44	0.077	200	68	6.242	200	3	3	20	15	200	494	1	37
300	328.090	300	186	730	300	66	0.116	300	103	1.362	300	5	3	17	6	300	741	1	15
400	437.453	400	248	973	400	88	0.155	400	137	4.483	400	7	3	13	14	400	988	1	33
500	546.816	500	310	1,217	500	110	0.193	500	181	7.604	500	9	3	10	5	500	1,235	2	11

* In the majority of States the hundredweight rates at 100 lbs. and the ton accordingly at 2,000 lbs., but in this table the computation has been made at 112 and 2,240 lbs. respectively, as the computation on the other basis is very simple.

A CALENDAR FOR THE CENTURY.

To find the days of the week corresponding to the days of the month for any year of the century, find the year in the left-hand upper division. Follow the index (or hand) to the right, to the month sought; then downward to the day of the week, and to the left for the corresponding days of the month. In leap-years, if seeking the day of the month, after the 29th of February, subtract one day; but if the day of the week is sought, go forward one day. The heavy figures are leap years. The civil year is 365.2422414 days; but on the basis of an added day (for leap-year) every fourth year, it is reckoned as 365.25 days, an excess of .0077586 of a day, or one day in 129 years, and three days in 387 (or roundly, 400) years. To correct this excess, instead of 100 leap-years in 400 years only 97 are reckoned, the three century-years that are not exact multiples of 400 being treated as common years.

1800 '51 '06	**'12** **'96**	'17 '62	'23 **'68**	'45 '73	'34 '79	**'40** '90		June.	Sept. Dec.	April. July.	Jan. Oct.	May.	Aug.	Feb. Mar. Nov.
'65 '50	'11 **'56**	'95 '61	'22 '67	**'28** **'89**	'33 '78	**'84**		Sept. Dec.	Aprfl. July.	Jan. Oct.	May.	Aug.	Feb. Mar. Nov.	June.
'49 1900	'10 '55	**'16** **'94**	'21 '66	'27 **'72**	**'44** '77	'38 **'83**		April. July.	Jan. Oct.	May.	Aug.	Feb. Mar. Nov.	June.	Sept. Dec.
'04 '93 **'99**	'09 '54	'15 **'60**	'43 **'65**	'26 '71	**'32** **'88**	'37 '82		Jan. Oct.	May.	Aug.	Feb. Mar. Nov.	June.	Sept. Dec.	April. July.
'03 **'48**	'42 '53	'14 '59	**'20** '87	'25 '70	'31 **'76**	'98 '81		May.	Aug.	Feb. Mar. Nov.	June.	Sept. Dec.	April. July.	Jan. Oct.
'02 '47 '97	**'08** '86	'13 '58	'19 **'64**	'41 '69	'30 '75	**'36** **'92**		Aug.	Feb. Mar. Nov.	June.	Sept. Dec.	April. July.	Jan. Oct.	May.
'01 '85	'07 **'52**	'46 '57	'18 '63	**'24** '91	'29 '74	'35 **'80**		Feb. Mar. Nov.	June.	Sept. Dec.	April. July.	Jan. Oct.	May.	Aug.
							✠	𝔖	𝔐	𝔗	𝔚	𝔗	𝔉	𝔖
29	22	15	8	1				Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
30	23	16	9	2				Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
31	24	17	10	3				Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.	Mon.
..	25	18	11	4				Wed.	Thurs.	Fri.	Sat.	Sun.	Mon.	Tues.
..	26	19	12	5				Thurs.	Fri.	Sat.	Sun.	Mon.	Tues.	Wed.
..	27	20	13	6				Fri.	Sat.	Sun.	Mon.	Tues.	Wed.	Thurs.
..	28	21	14	7				Sat.	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.



LEGAL BUSINESS DEPARTMENT

HOW TO AVOID LITIGATION

UNTIL the millennium begins, men will not be able to exist without courts, law and lawyers. When man was in a state of nature, before what the philosophers call the social compact was entered into, the law that prevailed was the strong hand. Property belonged not necessarily to him who manufactured it or found it, but to him who had the physical ability to prevent other people from depriving him of it. As the verse runs, humanity began with

> —The good old plan,
> That they shall take who have the power,
> And they shall keep who can.

And much as we may talk about the reasonableness and light of our civilization, that theory lies underneath every legal process we use to-day. First the man righted his own wrongs according to his natural reason—a sort of wild justice that was made up of all injustice, and in which capital punishment was the only penalty recognized. Next the family took up the administration of the law—a step in the right direction, but only a step—and so, as men grew older in wisdom and experience, a man's wrongs were redressed first by himself, next by his family, next by his tribe, and lastly by his nation. Each of these changes was a change for the better, an approach toward impartiality and justice. Even in the night of time wise judges were at work making precedents which grew gradually into law, and that great system which we have to-day is as much a natural outgrowth of humanity as our civilization. It was seen early in our history as a race that the wisdom of the umpires to whom men addressed their disputes was not alone enough to insure peace and tranquillity to the land, and hence great law-givers appeared from time to time in every nation, who have left codes out of which we have built our common law and statute law of the nineteenth century. Each family of nations had its own statutes, differing widely in practice, but all founded upon justice and common sense. The English law, which we in America have brought with us from the old home, is, like the English language, an *olla podrida* of many elements. The Saxon code lies under all with its strong tendency to personal liberty, and exact and equal justice to high and low, just as the Saxon tongue is the basis and foundation of our language.

The Norman Conquest brought in changes in the tenure of land, together with the martial law, the game laws and the criminal and the feudal laws of France. Mixing in this hotch-potch, the Roman Church added the ecclesiastical and part of the criminal law, drawn directly, as the French laws came indirectly, from the great Codex Justiniani, of the Roman Empire, and this strange mixture has grown in the centuries that have passed into the great guarantee of liberty and justice which our law to-day represents.

Always seeking after right and common sense, our law is not perfect, nor is it perfectly administered, but the whole world admits that the English-speaking people have the best laws known to man. Perfection erring humanity will never attain.

Our criminal law has been built upon the theory that the criminal must be protected, and it is for his protection that the statutes run. At first the only punishment that men knew was death or maiming. In the middle ages thieves were boiled in oil, and robbers were impaled alive. Witnesses were questioned on the rack, and evidence extorted with thumbscrew and the iron boot, crushing the flesh in the search for truth. As the years rolled by all of this was ameliorated, and to-day mercy is tempered with justice, and the shameful barbarisms of the courts of the middle ages are becoming rarer and rarer.



I. THE SUIT BEGINS: THE LAWYER GETS THE MILK FOR HIS FEES.

It is not the purpose of this work to make any man a lawyer learned in the law. It were idle, and worthy only of a catchpenny mountebank, to pretend that in a volume like this could be compressed the whole of a great science which demands of its professors years of toil and years of study and experience. Once involved in litigation, go to a lawyer, and to the best lawyer you can afford. Any one who gives the reader different advice is dishonest and knavish, and common sense must recognize this indictment.

An ounce of prevention, however, is worth a pound of cure, and we verily believe that in the pages that follow many ounces of prevention will be found. Law is a costly luxury that should only be indulged in as a last resort, when justice cannot be gained by less expensive means. The wise man avoids it as he would avoid bankruptcy or fire, and he takes all the prudent precautions that he can to escape litigation. We claim that the student of these pages will be fully equipped for that purpose.



II. END OF THE SUIT: THE LAWYER GETS BOTH COW AND MILK.

Law is a costly luxury, we have said; and the wisdom of antiquity, which built the law, has built also on this truism. One of the earliest fables the child is told, is the story of the two cats who referred a cheese case to a monkey learned in the law, and whose chose-in-action gradually went into the digestive system of the court. The story we illustrate below conveys a moral that all should heed.

Observe the obstinate litigants pulling at the head and tail of the disputed cow; how determined each is, not to win the animal, but to prevent the other from getting her, and see the attorney, learned and gentlemanly, industriously milking fees and retainers into his bucket and advising the plaintiff to hold hard and steady. And when the cow is milked, see how the litigation ends: one man has the horns and a severe fall, the other has the tail and an equally unpleasant tumble, while the lawyer walks off with the cow and the milk and an exceedingly good opinion of the law. The satire may be rather broad, but it teaches what every sensible man will tell you, that there is no dearer commodity in this world than justice.

No matter what transaction you are about to engage in, study the forms we give, read the hints we publish. Do nothing blindly. In no case is knowledge power so much as in business law. Who are the men that succeed? They are those who understand it. Which of your friends is tangled up in costly, perhaps ruinous, litigation? Ask him how it began, and he will point out to you some trifling error, made in a culpable ignorance, which, had he the lesson we teach before him, he would have avoided. Then study these pages if you would gain the benefit that lies before you. A half hour's attention before a transaction is consummated may save you thousands afterwards. The diligent student may be sure of one thing, that, with this manual at command, its hints obeyed, its instructions followed, its forms used, it will take a very much better lawyer than the average business man to force him into a lawsuit, and yet his rights will be as thoroughly secure as though they had been vindicated and asserted by all the supreme courts of the Republic.

Legal Business Forms.

How they are Properly Drawn and Executed.

AGREEMENTS AND CONTRACTS.

A CONTRACT is legally defined to be an agreement between persons competent to contract to do or not to do, for a consideration, some specified thing. Following upon this definition, it is evident that those things to be specially examined about a contract are the parties, their legal ability and their consent. There must be two or more persons concerned, and it is vital that they must be able to contract. "*Persons*" is here taken in the legal meaning, which includes artificial persons, such as corporations and States. Corporations can only contract as they are empowered by their charters; States, as they are permitted by their constitutions. Persons not of legal age can not usually contract, but when of age they may, in certain cases, ratify contracts made in infancy. The contract of marriage may be entered into under age. Idiots and insane persons cannot contract.

Consent is vital to a contract. It may be given by a word or a nod, by the shaking of hands or by a sign. Often, in law, the old saying that "silence gives consent" is upheld. In a written contract assent is proven by the signature or mark of the persons.

The first step toward a contract is the proposition or offer, which may be withdrawn at any time before it is agreed to. When the proposition is verbal, and no time is specified, it is not binding unless accepted at once. To give one the option or refusal of property at a specified price, is simply to give him a certain time to make up his mind whether he will buy the property or not. To make the option binding he must accept within the time named. The party giving the option has the right to withdraw it, and sell the property to another, at any time previous to its acceptance, even within the time for which the refusal was given, because the offer is gratuitous, and there is no consideration to support it.

A written proposition may be accepted at any time before notice of withdrawal. But the proposer can retract at any time before it is accepted. If a letter of acceptance is mailed, however, and immediately after a letter withdrawing the offer is received, the contract is binding. An acceptance takes effect from the time it is mailed, not from the time it is received; it must be in accordance with the original proposition, for any new matter introduced would constitute a new offer. When the offer is accepted, either verbally or in

writing, it is an express assent, and is binding. Express assent is not affected by custom or usage of trade. Implied assent is accepted by the law when common sense seems to demand it. For instance, if John Jones draws a draft on Abraham Swift, which Swift refuses to accept, and James Smith accepts the draft to save John Jones' credit, there is an implied assent on the part of Jones to indemnify Smith.

A contract made under a mistake of law is not void. Everybody is presumed to know the law, and ignorance is no excuse. This, however, applies only to contracts permitted by law and clear of fraud. A refusal of an offer cannot be retracted without the consent of the second party. Once a proposition is refused, the matter is ended. And no one has the right to accept an offer except the person to whom it was made.

The consideration is the reason or thing for which the parties bind themselves in the contract, and it is either a benefit to the promisor or an injury to the other party. Considerations are technically divided into *valuable* and *good*, and it sometimes happens that the consideration need not be expressed, but is implied. A valuable consideration is either money or property or service to be given, or some injury to be endured. A promise to marry, for instance, is a valuable consideration. A good consideration means that the contract is entered into because of consanguinity or affection, which will support the contract when executed, but will not support an action to enforce an executory contract. Whether a consideration is sufficient or not is tested by its being a benefit to the promisor or an injury to the other party. If it has a legal value, it makes no difference how small that value may be. The promisor need not always be benefited, as, for instance, the endorser of a note, who is liable although he gets no benefit. But if a person promise to do something himself for which no consideration is to be received, there is no cause of action for breach of the contract. Among sufficient considerations we may include "forbearance," the waiting for payment or for the execution of another contract, and "mutual promises," if made simultaneously, not otherwise, and finally a pre-existing "moral obligation," as, for instance, when a debt has become outlawed through the statute of limitations, a promise to pay it will renew the liability of the debtor.

THE STATUTE OF FRAUDS.

The English Statute of Frauds, which has been re-enacted in most of the American States, provides that "no action shall be brought whereby to charge the defendant upon any special promise to answer for the debt, default or miscarriage of another person, unless the agreement upon which such action shall be brought, or some memorandum or note thereof, shall be in writing, and signed by the party to be charged therewith, or some other person thereunto by him lawfully authorized." This is held not to apply to original promises, but only to collateral engagements or cases where a debt already exists on the part of a third person. As in the case of a note already given to Brown by Jones, a promise from Smith to pay must be in writing to be binding. If Brown tells Jones to deliver goods to Smith, saying: "I will pay if he doesn't," or "I will see you paid," it is a mere offer of guaranty, and is a collateral undertaking, which comes within the statute; but it is different if he says: "Charge them to me," or "I will pay." The latter is an original promise, and need not be in writing. No consideration is necessary, so far as the person who guarantees is concerned, if it is a benefit to the person in whose favor the promise is made. This statute does not apply in cases where an original promise is made at the time the debt is created. The statute of frauds

also provides that no sale shall be binding unless the buyer shall first accept part of the goods so sold, and actually receive them; or, 2d, give something in earnest, to bind the bargain, or in part payment; or, 3d, that some note or memorandum, in writing, of the said bargain be made and signed by the parties or their agents. The writing must state the promise, and also the consideration. Where goods exist in the condition in which they are to be delivered, and the delivery is to take place in the future, a sale of such goods comes within the statute.

CAUSES WHICH VITIATE CONTRACTS.

There are several causes which void contracts, first among which is fraud. Fraud is defined to be "every kind of artifice employed by one person for the purpose of wilfully deceiving another to his injury." No fraudulent contract will stand in law or in equity. The party upon whom the fraud has been practiced must void the contract as soon as he discovers the fraud, for if he goes on after having knowledge of the fraud he cannot afterwards avoid it. But the one who perpetrates the fraud cannot plead that ground for voiding it. Contracts in restraint of trade are void, as also are contracts in opposition to public policy, impeding the course of justice, in restraint of marriage, contrary to the insolvent acts, or for immoral purposes. Any violation of the essential requisites of a contract, or the omission of an essential requisite, will void it.

THE DEFENCES

which may be set up against an action on contract are eleven in number, and may be summarized thus: Performance, Payment, Receipts, Accord and Satisfaction, Arbitrament and Award, Pendency of Another Action, Release, Tender, Statute of Limitations, Set-Off, Recoupment.

A Building Contract.

Memorandum of Agreement, made this 10th day of May, one thousand eight hundred and eighty-three, between Henry Davis, of St. Louis, of the first part, and Joseph Stephenson, of the same place, builder, of the second part. The said party of the second part covenants and agrees with the said party of the first part to make, erect, build and finish in good, substantial and workmanlike manner, on the lot belonging to the party of the first part, and known as No. 243 North Nineteenth street, one brick house, agreeable to the draft, plan and explanation hereto annexed, of good and substantial materials (or of such materials as the party of the first part may find and provide therefor), by the 1st day of September next. And the said party of the first part covenants and agrees to pay unto the said party of the second part, for the same, the sum of one thousand dollars lawful money of the United States, as follows: the sum of $200 on the 1st of June, $200 on the 1st of July, $200 on the 1st of August, $400 on the completion of the house.

(*If the owner is to furnish materials, add:* and, also, that he will furnish and procure the necessary materials for the said work, in such reasonable quantities, and at such reasonable time, or times, as the said party of the second part shall or may require.)

And for the true and faithful performance of all and every of the covenants and agreements above mentioned, the parties to these presents bind themselves, each unto the other, in the penal sum of $200, as liquidated damages to be paid by the failing party.

In witness whereof, The parties to these presents have hereunto set their hands (and seals) the day and year first above written.

HENRY DAVIS.
Signed, sealed and delivered in presence of } JOSEPH STEPHENSON.
JAMES WILSON.
H. C. BOYD.

Contract with Employe.

This Agreement, made this 22d day of December, 1883, between J. F. Townley, of Chicago, of the first part, and Campen, Strauss & Co., of St. Louis, Mo., of the second part, witnesseth: That the said J. F. Townley agrees faithfully and diligently to serve the said Campen, Strauss & Co., as clerk, in the store of said Campen, Strauss & Co. (*or otherwise*), at St. Louis, for the period of one year, from and after the 1st day of January next, for the sum of $1,500 per year. In consideration of which service, so to be performed, the said Campen, Strauss & Co. agree to pay the said J. F. Townley the sum of $125 per month, payable on the first day of each month, during said term.

And it is understood and agreed that the death of either of them, occurring prior to the expiration of said term of one year, shall terminate this agreement.

In witness whereof, etc.

CAMPEN, STRAUSS & CO.
J. F. TOWNLEY.

Contract for the Sale of Property.

This Agreement, made this 5th day of March, 1883, between Alan McDowell, of St. Louis, and C. S. Wheeler & Co., of New York, witnesseth: That the said Alan McDowell agrees to sell and deliver to the said C. S. Wheeler & Co., at their store in New York, five thousand bushels of potatoes on or before the 2d day of May, 1883, and the said C. S. Wheeler & Co., in consideration thereof, agree to pay to the said Alan McDowell fifty cents per bushel for said potatoes, immediately upon the completion of the delivery thereof.

In witness whereof we have hereunto set our hands, this 5th day of March, 1883, at New York City.

C. S. WHEELER & CO.
ALAN MCDOWELL.

Short Form of Contract.

John D. Simons hereby agrees to sell one thousand head of two-year-old cattle, to be delivered in Chicago before February 1, 1883, to Knox, Stout & Co., at $20 a head, and the said Knox, Stout & Co. agree to pay $20 per head for all two-year-old cattle, up to one thousand head, delivered by said John D. Simons, prior to February 1, 1883.

Signed at Chicago, Ill., this 20th day of September, 1881.

KNOX, STOUT & CO.
JOHN D. SIMONS.

Agency and Attorney.

WHEN one person is authorized to act in a business capacity for another, under a contract either express or implied, he becomes the agent of the latter, and the act of the agent, when legally authorized, is the same as if done by the principal. For ordinary contracts constituting an agency, a written or verbal agreement or appointment is required, but contracts required to be under seal can only be made by an agent whose appointment is established by a sealed instrument. An agent may be so constituted by his acts without a formal appointment. Where a principal willingly and knowingly allows a person to do acts in his name, he will be presumed to have given him authority. Where several persons are appointed by law as agents, the thing to be done may generally be executed by a majority of them.

The extent to which the agent's authority binds the principal is to be gathered from the appointment, and depends upon the power which has been delegated to him by express or implied contract. The principal is not bound if the agent go beyond his authority, unless, with knowledge of the fact, he has taken the benefit of it.

Different Kinds of Agency.

THE various kinds of agency are called special and general; limited and unlimited; factor and broker. A special agency is an agency to do a single act, and every person doing business with a special agent must ascertain what the extent of his authority is, and at his own risk. A general agency consists of delegated authority to do anything about a particular business, the principal being bound for all acts of the agent that come within the scope of the business. Limited agency is that in which particular instructions restrict and limit the agent's authority. Unlimited agency is one in which a special agent is given authority to use any means he may find necessary to accomplish the desired

end. The factor, commonly called commission merchant, is one who has the property of his principal in his own possession, for sale, such property being called a consignment. Such agent, accompanying a cargo on a voyage, is called a supercargo. A broker is one who is employed to negotiate sales between the buyer and seller. He does not have possession of the property which he negotiates, nor authority to sell in his own name.

With few exceptions to the rule, an agent is not obliged to account for the price of goods he has sold until he has recovered the money from the purchaser.

When an agent makes the contract in the name of the principal, and under his authority, he generally avoids personal liability.

The agent is given the right of lien on the property in his possession, and also the right to insure it, to secure the payment of his commission. He is also entitled to reimbursement for costs and damages which, through no fault of his, he has been obliged to pay in relation to the agency.

The principal has reciprocal rights against third persons, corresponding with his own liabilities, and may sue them, when they are responsible, or their contracts made with the agency. He is liable to third persons for the negligence or unskilfulness of the agent, when he is acting in the fulfilment of the agency business, even if he is not under his immediate direction. The general principle is, that for all torts, frauds, misfeasances and defaults of the agent, done in the regular course of the agency business, the principal is liable, whether he participated in it or not, provided it were not the agent's wilful act. The agent is liable equally with the principal for all wrongs done by him under order of his principal.

Unless expressly authorized, the agent has no right to delegate his own powers to a subagent.

A notice to an agent is generally considered notice to the principal.

Money paid by an agent can be recovered by the principal, if it has been paid by mistake; if the consideration has failed; if the money was illegally extorted from him as agent; or if it was fraudulently applied to some illegal purpose by the agent.

An agency may be dissolved: by a revocation by the principal of the power of the agent; by operation of law.

Power of Attorney—Short and Simple Form.

Know all men by these presents: That I, the undersigned, of Minneapolis, Minn., do hereby make, constitute and appoint R. J. Belford, of St. Paul, Minn., my true and lawful attorney, for me, and in my name and stead —— *(here insert the subject-matter of the power);* to do and perform all the necessary acts in the execution and prosecution of the aforesaid business, and in as full and ample a manner as I might do if I were personally present.

HOWARD BELDEN.

Executed in presence of
HENRY LEMSON.

Letter of Substitution.

(To be endorsed on the power of attorney.)

I hereby appoint Geo. W. Jones as my substitute and in my stead to do and perform every act and thing which I might or could do by virtue of the within power of attorney. *(Signed)* R. J. BELFORD.

Power of Attorney to Collect Debts, Rents, Etc.

Know all men by these presents: That I, Samuel Adams, of Boston, Mass., do by these presents make, constitute and appoint Chas. E. Foster my true and lawful attorney, for me, and in my name, place and stead, to demand, ask, sue for, collect and receive all sums of money, accounts, debts, dues, rents and demands of every description, kind and nature whatsoever, which are due, owing or payable from any person or persons whomsoever, and to give good and sufficient receipts, acquittances and discharges therefor; giving and granting unto my said attorney full authority and power to do and perform every act and thing whatsoever necessary and requisite to be done in the premises, as I might or could do if personally present.

In testimony whereof, I have hereunto set my hand and seal, this —— day of ——, 188—.

SAMUEL ADAMS. [L.S.]

Signed and sealed in presence of
JEROME BEASEY.

Letter of Revocation.

Know all men by these presents: That I, R. S. Miller, of Covington, Tenn., in and by my letter of attorney, bearing date the —— day of ——, did make, constitute and appoint J. H. Pitt my attorney, as by said letter more fully appears.

That I, the said R. S. Miller, do by these presents annul, countermand, revoke and make void said letter of attorney and all authority and power thereby given said attorney, J. H. Pitt.

In witness, etc.

R. S. MILLER. [L.S.]

Power of Attorney to Sell Stock.

Know all men by these presents: That I, J. E. Hartman, of Centralia, Ill., do by these presents make, constitute and appoint J. A. L. Romig my true and lawful attorney, for me and in my stead to sell and transfer unto any persons whomsoever, and for such price as my said attorney shall think fit, all and any of the following stocks *(describing them.)*

And also for me, and in my name, to make and pass all necessary acts of assignment, and to give and receive receipts and releases for the consideration money arising from the sale thereof.

And also for me, and in my name, to give receipts for all interest and dividends now due or that shall hereafter become due on said capital stock, until the sale and transfer thereof.

In witness, etc.

Power to Vote as Proxy at an Election.

Know all men by these presents: That I, Homer Huston, of Paxton, Ill., do hereby appoint T. M. Elliott to vote as my proxy at any election of directors or other officers of the *(name the company or corporation)* according to the number of votes I should be entitled to if I were then personally present.

HOMER HUSTON. [L.S.]

Power to Take Charge of and Carry on Business.

Know all men by these presents: That I, Julius Schonfeld, of Jefferson, Texas, do by these presents appoint, constitute and make R. V. Jennings my true and lawful attorney, for me and in my place and stead, to take charge of my business of general merchandising, at Marshall, Texas; to purchase and sell, for cash or on credit, all such articles, goods, merchandise and wares as he shall deem proper, necessary and useful to said business; to sign, accept and endorse all notes, drafts and bills, to state accounts; to sue and prosecute, compromise, collect and settle all claims or demands due or to become due, now existing or hereafter to exist in my favor; to adjust and pay all claims or demands which now exist or may hereafter arise against me, either connected with said business or otherwise.

In witness whereof, I have hereunto set my hand and seal, this —— day of ——, 188—.

JULIUS SCHONFELD. [L.S.]

Affidavits.

AN affidavit is a sworn declaration, taken before a competent official, which differs from a deposition in the fact that no cross-examination is possible. When an affidavit is amended by order of court, it must be re-sworn. It should be positive in the description of amounts, places, persons, etc.; even if an amount is uncertain, some sum must be named. It must also specify the day and place whereon it was sworn. The date is given in what is called the *jurat*, and the place in the *venue* of the affidavit. Where a person is unable to read or write, or is blind, the *jurat* must show that the affidavit was read over to the affiant, and his mark or signature must be properly witnessed, and the *jurat* must be also signed in all cases by the officer before whom the affidavit is made. The *jurat* is that part of an affidavit which tells how, when, by whom and before whom the oath was taken. The *venue* simply states the place where, thus:

State of ——, }
County of ——, } *ss.*

An omission of the *venue* is fatal, as it is the only evidence that the person administering the oath had power to swear witnesses.

Where an affidavit is required by law, the maker of a false one can be punished for perjury, although in courts of law or equity affidavits are not considered as testimony.

General Form of Affidavit.

STATE OF MISSOURI, FRANKLIN COUNTY, TOWN OF WASHINGTON, *ss.*

Bernard Mense, being duly sworn, deposes and says *(or* alleges and says): That:—*(Here set out in full and accurate language the matters to be alleged.)*

[SEAL.] BERNARD MENSE.

Sworn *(or affirmed)* before me, this twenty-ninth day of August, A. D. 1883.

JOHN WELLENKAMP,
Justice of the Peace.

(If the affiant is unable to read, the subscription should be as follows:)

Subscribed and sworn to before me, this —— day of ——, A.D. 18—, the same having been by me *(or* in my presence) read to this affiant, he being illiterate *(or* blind), and understanding the same.

(Officer's signature and title.)

Affidavit to Accounts.

STATE OF ILLINOIS, PULASKI COUNTY, *ss.*

Before me, the undersigned, one of the justices of the peace in and for said county, personally came Theodore Wehrfritz, of Mound City, and, being duly sworn according to law, deposes and says: That the above account, as stated, is just and true.

That the above sum of seventy-nine dollars is now justly due and owing to this deponent by the above named Robert Robinson.

That he, the said Theodore Wehrfritz, has never received the same or any part thereof, either directly or indirectly, nor any person for him, by his direction or order, knowledge or consent.

THEODORE WEHRFRITZ.

Sworn and subscribed before me, this thirteenth day of August, A.D. 1883.

WILLIAM WESTERMANN,
Justice of the Peace.

Affidavit to Petition.

STATE OF ILLINOIS, CLINTON COUNTY, *ss.*

Theodore Volmer, being duly sworn, says: That the facts set forth in the foregoing petition are true to the best of his knowledge and belief.

THEODORE VOLMER.

Sworn, etc. *(as in preceding forms).*

Affidavit to Signature of Absent or Deceased Witness.

STATE OF KANSAS, CRAWFORD COUNTY, *ss.*

Be it remembered, That on the fourth day of September, A.D. 1883, before me, the undersigned, James Atkinson, one of the justices of the peace in said county, personally appeared William Hawley, who, being duly sworn, deposes and says: That Alexander Stuart, one of the subscribing witnesses to the within *(will or deed)* is *(dead or absent from the State, as the case may be)*.

That he has frequently seen said Alexander Stuart write, and that he is well acquainted with the handwriting of said Alexander Stuart.

That to the best of his knowledge and belief *(or* he verily believes) the name of Alexander Stuart, signed to the same as one of the subscribing witnesses, is the proper and individual handwriting of said Alexander Stuart.

WILLIAM HAWLEY.

Subscribed and sworn to before me, this fourth day of September, A.D. 1883.

JAMES ATKINSON,
Justice of the Peace.

Apprentices.

AN APPRENTICE is one bound out to service in due form of law, to learn some art, trade or business. The contract continues for no longer time than the minority of the apprentice, and the instrument should be signed by the apprentice and his father, or, in case of death or incapacity of the latter, by the mother or legally constituted guardian.

The master stands toward the apprentice in the relation of a parent, and cannot dismiss the latter, except by decree of the proper tribunal, assigned by the laws of the particular State. An apprentice, on his part, is under obligation to obey all the lawful commands of the master, to advance, as far as he may, his interests, to endeavor to learn his art, trade or business, and perform all the covenants entered into.

The death of the master terminates the apprenticeship, unless the indenture run to the executors or administrators. An apprentice will be discharged by the proper authority for acts of the master injurious to his mind or morals.

Indenture of an Apprentice.

This indenture of apprenticeship between John Garrett, father of Philip Garrett, on the one part, and William Nead, of the other part, witnesseth. That the said Philip Garrett, aged 15 years on the 20th day of August, A.D. 1882, is hereby bound as an apprentice under the said William Nead, from the date hereof until the 20th day of August, 1886, to learn the trade and art of a printer; and is faithfully to serve the said William Nead and correctly to conduct himself during the term of his apprenticeship.

And the said William Nead hereby covenants that he will teach the said Philip Garrett the said trade and art, and will furnish him, during said apprenticeship, with board, lodging, washing, clothing, medicine, and other necessaries suitable for an apprentice in sickness and in health; and will send him to a suitable public school at least three months during each of the first two years of the said term; and at the expiration of the said apprenticeship will furnish him with two new suits of common wearing apparel and one hundred dollars in money.

In testimony whereof, the parties hereto have set their hands and seals this twentieth day of August, A.D. 1882.

Executed in presence of
PETER DAY,
Notary Public.

JOHN GARRETT. [L.S.]
WILLIAM NEAD. [L.S.]

Consent of the Minor.

I hereby consent to the foregoing indenture, and agree to conform to the terms thereof in all things on my part to be performed.

Dated the 20th day of August, in the year 1882.

PHILIP GARRETT.

Release of an Apprentice.

Know all men by these presents: That Philip Garrett, son of John Garrett, did by his agreement, bearing date the —— day of ——, bind himself as an apprentice unto William Nead, of ——, for a term of —— from the date thereof, as by said indenture more fully appears.

That, complaint having been made to the undersigned Justice of the Peace upon oath of Philip Garrett, apprentice of William Nead, to whom said Garrett is bound, that *(here state the cause for release)*. That by reason thereof, said William Nead does hereby release and forever discharge said Philip Garrett and John Garrett, his father, of and from said agreement and all service and all other agreements, covenants, matters and things therein contained, on their or either of their parts to be observed and performed, whatsoever, from the beginning of the world unto the date hereof.

In witness whereof, I have hereunto set my hand, this —— day of ——, A.D. ——.

WILLIAM NEAD.

Arbitration.

WHEN it becomes necessary or expedient in matters of dispute to have an equitable settlement without the interposition of the courts, what are termed arbitrators are selected by the parties in interest. In ordinary cases the question is usually referred to a single person who has the confidence of both parties, and is conversant with the law and the rules of evidence. Arbitrators are not bound by legal rules in the admission or exclusion of evidence, unless it is so stipulated in the agreement. An award must be conformable to the terms of the submission, and only the precise questions submitted to them should be answered. A submission to arbitration, voluntarily entered into by the parties, without the aid of the statutes or rules of court, may be revoked by either of the parties at any time before the publication of the award, though this would render the revoking parties liable in damages, which would include all the expenses incurred by the other party and all he could prove he had lost in any way by the revocation.

Form of Submission to Arbitration.

Know all men, That a controversy exists between the undersigned, Lewis Anderson and James Ray, concerning the boundary and division lines of the following tract of land, situated in *(here describe the land, and state the portion in controversy)*.

That said Lewis Anderson and James Ray do hereby submit said controversy to the abitrament of Nelson West and John Farnsworth.

That said award shall be made in writing under the hands of said arbitrators, ready to be delivered to said parties, or such of them as may desire the same, on or before the second day of February next.

That said award shall in all things by us and each of us be well and faithfully kept, observed and performed.

Witness our hands, etc.

In presence of
WALTER REX,
Notary Public.

LEWIS ANDERSON.
JAMES RAY.

Form of Arbitration Bond.

Know all men by these presents: That Lewis Anderson and James Ray have, this —— day of ——, A. D. ——, submitted their matters in controversy, concerning the boundary and division lines of a certain tract of land *(describe it)*, to Nelson West and John Farnsworth, to arbitrate, award, order, judge and determine of and concerning the same.

That we, the undersigned, bind ourselves, in the sum of —— dollars, that said Lewis Anderson and James Ray shall submit to the decision and award of said arbitrators, provided said award be made in writing on or before the second day of February, A. D. ——.

(Signed) EUGENE SMALL.
JUDSON WILLIS.

Form of Notice to Arbitrators.

GENTLEMEN—You have been chosen arbitrators on behalf of the undersigned, to arbitrate and award between them, in divers matters and things, set forth in their submission, which will be produced for your inspection when you meet at ——, in ——, on the —— day of ——, at — o'clock — M., to hear the allegations and proofs.

Dated, etc

LEWIS ANDERSON.
JAMES RAY.

General Form of Arbitrators' Award.

To all to whom these presents shall come, or may concern, know ye: That the matter in controversy existing between Lewis Anderson, of ——, and James Ray, of ——, as by their submission in writing, bearing date the —— day of ——, more fully appears, was submitted to Nelson West and John Farnsworth, as arbitrators.

That said arbitrators, being sworn according to law, and having heard the proofs and allegations of the parties, and examined the matter in controversy by them submitted, do make this, their award, in writing.

(Write out in full the award.)

In witness whereof, we have hereunto subscribed our names, this —— day of ——, A.D. ——.

NELSON WEST,
JOHN FARNSWORTH,
Arbitrators.

Assignments.

ANY transfer of property made in writing is properly called an assignment, thus distinguishing the act from a transfer made by delivery. In effect, it is passing to another person all of one's title or interest in any sort of real or personal property, rights, actions or estates. However, some things are not assignable; an officer's pay or commission, a judge's salary, fishing claims, Government bounties, or claims arising out of frauds or torts. Personal trusts cannot be assigned, as a guardianship or the right of a master in his apprentice.

Unlike many other legal devices, the holder of an assignment is not bound to show that a valuable consideration was given. The owner of a cause of action may give it away if he pleases, and in the absence of positive evidence to the contrary the court will presume that the assignment was for a sufficient consideration. Proof will only be called for when it appears that the assignment was a mere sham or fraudulent. No formality is required by law in an assignment. Any instrument between the contracting parties which goes to show their intention to pass the property from one to another will be sufficient. It may be proved, for instance, by the payee of a note, that he endorsed (or delivered without endorsement) the note to the assignee, and this is sufficient evidence of assignment

In every assignment of an instrument, even not negotiable, the assignee impliedly warrants the validity of the instrument and the obligation of the third party to pay it. He warrants that there is no legal defence against its collection arising out of his connection with the parties; that all parties were legally able to contract, and that the amount is unpaid.

An assignment carries with it all the collateral securities and guaranties of the original debt, even though they are not mentioned in the instrument.

It is usual to use as operative words in an assignment the phrase, "assign, transfer and set over;" but "give, grant, bargain and sell," or any other words indicating an intention on the part of the parties to transfer the property, are sufficient in law.

Where property is assigned for the benefit of creditors, its actual transfer to the assignee must be made immediately. When an assignment is made under the common law, the assignor may prefer certain creditors; but in a State where this sort of an assignment is governed by statute, no preference can be shown. An assignment for the benefit of creditors covers all of the assignor's property, wherever or whatever it may be, that is not exempt from execution.

When insured property is sold, the insurance policy should be assigned. This can only be

done with the consent of the insurer, and that consent must be at once obtained.

Correct schedules of the property assigned should accompany and be attached to every assignment.

Assignment of a Note.

I hereby, for value received, assign and transfer the within written (*or* above written), together with all my rights under the same, to John Dobson. WILLIAM ATWOOD.

Assignment with Power of Attorney.

In consideration of the sum of one thousand dollars (the receipt of which is hereby acknowledged), I do hereby assign, transfer and set over to John G. Stewart (of St. Louis, Mo.), all my right, title and interest in and to *(here describe what)*.

(And I do hereby constitute said John G. Stewart my attorney, in my name or otherwise, but at his own costs and charges, to take all legal measures which may be proper or necessary for the complete recovery and enjoyment of the premises.)

Witness my hand (and seal) this 28th day of August, 1883.

(Witnesses.) WILLIAM SNYDER. [L.S.]

Assignment with Guaranty of Assignor.

For value received, I do hereby assign, transfer and set over to John G. Stewart the within obligation, and all moneys due and to become due thereon.

In case the same cannot be recovered of the within named Edwin Byron, I agree and promise to pay to said John G. Stewart the amount thereof, together with all necessary and reasonable charges thereupon accruing.

Witness my hand, etc. WILLIAM SNYDER.

(Witnesses.)

Shorter Form.

For value received, I hereby assign, transfer and set over to John G. Stewart the within obligation, hereby guaranteeing payment thereof.

(Witnesses.) WILLIAM SNYDER.

Assignment Without Recourse.

For value received, I hereby assign, transfer and set over to John G. Stewart the within obligation, and all moneys due (and to become due) thereon. All failure of recovery, liabilities, losses, wholly at the risk of said John G. Stewart, without recourse in any event upon me.

(Witnesses.) WILLIAM SNYDER.

Assignment of Wages.

Know all men by these presents: That I, William Snyder (of St. Joseph, Mo.), in consideration of one hundred dollars, the receipt of which I hereby acknowledge, do hereby assign, transfer and set over to John G. Stewart (of St. Louis, Mo.) all claims and demands which I now have, and all which, at any time between the date hereof and the 30th day of December next, I may or shall have, against Edwin Byron, for all sums of money due or to become due to me for services as ——.

That I do hereby appoint and constitute said John G. Stewart and his assigns my attorney, irrevocable, to do and perform all acts, matters and things in the premises, in like manner and to all intents and purposes as I could if personally present.

In witness whereof, etc.

Assignment of Money Due on Account.

Know all men by these presents: That William Snyder, in consideration of the sum of one hundred dollars to him in hand paid, does hereby assign, transfer and set over all his title and interest in and rights under an account for *(state what)* in the sum of one hundred and fifty dollars, hereunto annexed, and all other sum and sums of money remaining due and payable upon said account, unto John G. Stewart, with full power to ask, demand and receive the same (at his own costs and expenses) to his own use, and to give discharges and receipts for the same, or any part thereof.

That there is due said William Snyder, on said account, at the date of these presents, the sum of one hundred and fifty dollars, and that he has not received or discharged the same.

In witness, etc.

Bills of Sale.

A BILL OF SALE is a formal written conveyance of personal property. If the property is delivered when sold, or if part of the purchase-money is paid, a written instrument is not necessary to make the conveyance, but it is convenient evidence of the transfer of title. But, to protect the interests of the purchaser against the creditors of the seller, the bill is not sufficient of itself; there should also be a delivery of the property. If an actual and continued change of possession does not accompany the sale, it is void as against the creditors of the seller and subsequent purchasers and mortgagees in good faith, unless the buyer can show that his purchase was made in good faith, without intent

to defraud, and that there was some good reason for leaving the property in the hands of the seller.

Short Form of Bill of Sale.

I, Henry Anderson, of Chester, Pa., in consideration of two hundred and fifty dollars, paid by A. D. Criste, of Munster, Pa., hereby sell and convey to said A. D. Criste one bay horse *(give sex, size, color, age, etc.)*, warranted against adverse claims.

Witness my hand, this 4th day of Sept., A.D. 1883.

(Witness.) *(Signed)* HENRY ANDERSON. [L.S.]

Common Form—With Warranty.

Know all men by these presents: That in consideration of one thousand dollars, the receipt of which is hereby acknowledged, I do hereby grant, sell, transfer and deliver unto A. A. McHatton, his heirs, executors, administrators and assigns, the following goods and chattels, viz.: *(here describe the property).*

To have and to hold all and singular the said goods and chattels forever. And the said grantor hereby covenants with said grantee that he is the lawful owner of said goods and chattels; that they are free from all encumbrances; that he has good right to sell the same, as aforesaid; and that he will warrant and defend the same against the lawful claims and demands of all persons whomsoever.

In witness whereof, the said grantor has hereunto set his hand, this 12th day of December, A.D. 1883.

(Witness.) N. R. JENNER.

Sale of Personal Property.

Know all men by these presents: That I, Peter Dolan, of the city of Cleveland, county of Cuyahoga, State of Ohio, farmer, in consideration of four hundred dollars, to me in hand paid by Conrad Ullner, the receipt whereof I hereby acknowledge, have bargained, sold, granted and conveyed unto the said Conrad Ullner the following property, to-wit: two horses; to have and to hold the same; unto the said party of the second part, his executors, administrators and assigns forever.

In witness whereof, I have hereunto set my hand and seal, this 20th day of March, 1883.

PETER DOLAN.

Bonds.

A WRITTEN instrument, admitting an obligation on the part of the maker to pay a certain sum of money to another specified person at a fixed time, for a valuable consideration, is called a bond. The obligor is the one giving the bond; the beneficiary is called the obligee. This definition applies to all bonds, but generally these instruments are given to guarantee the performance or non-performance of certain acts by the obligor, which being done, or left undone, as the case may be, the bond becomes void, but if the conditions are broken, it remains in full force. As a rule, the bond is made out for a sum twice the amount of any debt which is apt to be incurred by the obligor under its conditions, the statement being set forth that the sum named is the penalty, as liquidated or settled damages, in the event of the failure of the obligor to carry out the conditions.

An act of Providence, whereby the accomplishment of a bond is rendered impossible, relieves the obligor of all liability.

A bond may be sued upon twenty years after right of action begins.

A bond simply for the payment of money only differs from a promissory note in having a seal.

Short Form of Bond.

Know all men by these presents: That we, John Smith, as principal, and William Meeser and A. J. Driscoll, as sureties, all of Bladensburg, in the county of Prince George, State of Maryland, are holden and stand firmly bound unto David Wright, of said county, in the sum of nine hundred dollars to be paid to the said David Wright, to the payment whereof we jointly and severally bind ourselves and our respective heirs firmly by these presents. Sealed with our seals.

Dated at Bladensburg, this tenth day of June, 1882.

(The condition attached is the same as in the succeeding forms.)

Executed and delivered in presence of WALTER WREN.

JOHN SMITH. [L.S.]
WILLIAM MEESER. [L.S.]
A. J. DRISCOLL. [L.S.]

Bond Secured by Mortgage.

Know all men by these presents: That I, Arthur Dean, of Towanda, in Bradford county, and State of Pennsylvania, am held and firmly bound unto Samuel Crafts, of Wyoming, in the same county and State, in the sum of two thousand dollars, to be paid to the said Samuel Crafts, his

heirs, executors, administrators or assigns, and to this payment I hereby bind myself, my heirs, executors and administrators, firmly by these presents.

Sealed with my seal, this 12th day of November, A.D. 1883.

The condition of the above obligation is:

That if I, the said Arthur Dean, or my heirs, executors or administrators, shall pay or cause to be paid unto the said Samuel Crafts the sum of one thousand dollars on the —— day of ——, with interest at the rate of —— per cent per annum, payable six months from the date hereof, and every —— months afterwards, until the said sum is paid, then the above obligation shall be void and of no effect; and otherwise it shall remain in full force.

And I further agree and covenant, that if any payment of interest be withheld or delayed for —— days after such payment shall fall due, the said principal sum and all arrearage of interest thereon shall be and become due immediately on the expiration of —— days, at the option of said Samuel Crafts, his executors, administrators or assigns.

Executed and delivered in presence of JOHN SIMMONS. } ARTHUR DEAN. [L.S.]

General Form of Bond.

Know all men by these presents: That I, John Grubb, of the town of Mound City, in the county of Pulaski, and State of Illinois, am held and firmly bound unto J. A. Williams, of Cairo, in the sum of one thousand dollars, to be paid to the said J. A. Williams, his executors or assigns; for which payment, well and truly to be made, I bind myself, my heirs, executors and administrators, firmly by these presents.

Sealed with my seal. Dated the 28th day of July, 1883.

The condition of the above obligation is such:

That if the above-bounden John Grubb, his heirs, executors or administrators, shall well and truly pay, or cause to be paid, unto the above-named J. A. Williams, his executors, administrators or assigns, the just and full sum of one thousand dollars, in five equal annual payments, from the date hereof, with annual interest, then the above obligation to be void; otherwise to remain in full force and virtue.

Sealed and delivered in presence of JNO. G. STEWART, W. F. GEORGE. } JOHN GRUBB. [L.S.]

A Bond to Execute a Deed.

Know all men by these presents: That I, John T. Nixon, of the city of St. Louis, in the State of Missouri, am held and firmly bound unto George Kline, of the same place, in the sum of nine hundred dollars, to be paid to the said George Kline, his executors, administrators or assigns; for which payment, well and truly to be made, I bind myself, my heirs, executors and administrators, firmly by these presents.

Sealed with my seal. Dated the 30th day of July, 1883.

The condition of the above obligation is such:

That if the above-bounden John T. Nixon shall well and truly make, execute and deliver to the said George Kline a deed of release and quit-claim of said John T. Nixon's interest in *(designating the property)* and shall suffer and permit the said George Kline, his heirs and assigns, to peaceably occupy and possess said interest, then this obligation is to be void; otherwise to remain in full force.

Sealed and delivered in presence of JOS. PETERSON. } JOHN T. NIXON. [L.S.]

A Bond to Execute an Assignment.

Know all men by these presents: That I, Chas. Curtman, of the town of Washington, in the county of Franklin, State of Missouri, am held and firmly bound unto William T. Smith, of the town of Pacific, in the sum of two thousand dollars, to be paid to the said William T. Smith, his executors, administrators or assigns; for which payment, well and truly to be made, I bind myself, my heirs, executors and administrators, firmly by these presents.

Sealed with my seal. Dated the 14th day of August, 1883.

The condition of the above obligation is such:

That if the above-bounden Chas. Curtman, his executors, administrators or assigns, on or before the —— day of —— next, shall, upon the reasonable request, and at the proper cost and charges of the said William T. Smith, his heirs or assigns, make, execute and deliver, or cause so to be, to the said William T. Smith, his heirs or assigns, or to such person or persons as he or they shall nominate and appoint, and to such uses as he or they shall direct, a good and sufficient assignment of all such estate and interest as he, the said Chas. Curtman, now has in the lands and tenements of John Thompson at Washington, Mo., then this obligation to be void; otherwise to remain in full force.

Sealed and delivered in presence of SOL. WINSTON. } CHAS. CURTMAN. [L.S.]

Corporations.

SEVERAL persons joining together for the accomplishment of any business or social purpose can, if they wish, legally organize themselves into a corporation, a form of partnership which combines the resources of all, and yet gives a limited pecuniary liability, amounting only to the amount of stock owned by each stockholder. In the States, the legislature of each Commonwealth enjoys the power of regulating the corporations, and in the Territories this power is, of course, vested in the General Government. The actual cost of organization amounts to something less than $10, most of which is in fees to the Secretary of State. When the stock has been subscribed a meeting is called, where each shareholder casts a vote for every share which he owns or holds a proxy for, for each person who is to be elected director, or he may give one director as many votes as the number of shares he is voting, multiplied by the number of directors to be elected, amounts to, or distribute his votes as he chooses. Thus, if he owns ten shares of stock and there are six directors to be elected, he has sixty votes, which he can give, either ten for each director, or twenty for each of three, or sixty for one, or in any other way that he sees fit, so that his whole vote will not be more than sixty votes. These directors meet as soon after the election as possible and choose a president, vice-president, secretary and treasurer, whereupon the corporation is ready for business.

FORMS FOR INCORPORATING.

The law in all the States on the subject of incorporating companies is very similar, and the following forms of the Milwaukee Water Gas Company will furnish a good example of how this important public act is accomplished:

STATE OF WISCONSIN, }
CITY OF MILWAUKEE. }

To ——— ———, *Secretary of State:*

We, the undersigned, John Smith, John Jones, Charles Ford, James Bell, John O'Neil, propose to form a corporation under an act of the General Assembly of the State of Wisconsin, entitled "An act concerning corporations," approved May 24th, 1880, and all acts amendatory thereof, and that, for the purpose of such organization, we hereby state as follows, to-wit:

The name of such corporation is Milwaukee Water Gas Company.

The object for which it is formed is to carry on the business of manufacturing water gas, or hydrogen, and to sell the product so manufactured.

The capital stock shall be five hundred thousand ($500,000) dollars, divided into five thousand shares of one hundred dollars each.

JOHN SMITH.
JOHN JONES.
CHARLES FORD.
JAMES BELL.
JOHN O'NEIL.

(*Endorsed on the back by the notary.*)

STATE OF WISCONSIN, }
CITY OF MILWAUKEE. }

I, a notary public, in and for the said city of Milwaukee, and State aforesaid, do hereby certify that on this 30th of November, A.D. 1880, personally appeared before me John Smith, John Jones, Charles Ford, James Bell, John O'Neil, to me personally known to be the same persons who executed the foregoing statement, and severally acknowledged that they executed the same for the purposes therein set forth.

In witness whereof, I have hereunto set my hand and seal, the day and year above written.

——— ———,
Notary Public.

Also, there must be a further endorsement describing the nature of the corporation thus: Statement of incorporation of the Milwaukee Water Gas Co. Location, City of Milwaukee, State of Wisconsin. Capital stock, $500,000. Object, manufacture of water gas.

State License for Incorporating.

STATE OF WISCONSIN, } *Secretary of State.*
DEPARTMENT OF STATE. }

To all to whom these presents shall come—Greeting:

WHEREAS, It being proposed by the persons hereinafter named to form a corporation under an act of the General Assembly of the State of Wisconsin, entitled "An act concerning corporations," approved May 24th, 1880, the object and purposes of which corporation are set forth in a statement duly signed and acknowledged according to law, and filed this day in the office of the Secretary of State.

Now, therefore, I, ——, Secretary of State of the State of Wisconsin, by virtue of the powers and duties vested in me by law, do hereby authorize, empower and license John Smith, John Jones, Charles Ford, James Bell and John O'Neil, the persons whose names are signed to the before mentioned statement, as commissioners to open books for subscription to the capital stock of the Milwaukee Water Gas Co., such being the name of the proposed corporation as contained in the said statement, at such times and places as the said commissioners may determine.

In testimony whereof, I hereto set my hand and cause to be affixed the great seal of State. Done at the city of Madison, this 6th day of December, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and sixth.

{GREAT SEAL.}

—— ——,
Secretary of State.

To —— ——,
SECRETARY OF STATE:

The commissioners duly authorized to open books of subscription to the capital stock of the Milwaukee Water Gas Company, pursuant to license heretofore issued, bearing date of the sixth day of December, A. D. 1881, do hereby report that they opened books of subscription to the capital stock of the said company, and that the said stock was fully subscribed; that the following is a true copy of such subscription, viz.: We, the undersigned, hereby severally subscribe for the number of shares set opposite our respective names to the capital stock of the Milwaukee Water Gas Company, and we severally agree to pay the said company on each share the sum of one hundred dollars.

	SHARES	AMOUNT.
John Smith	1,000	$100,000
John Jones	1,000	100,000
Chas. Ford	1,000	100,000
James Bell	1,000	100,000
John O'Neill	1,000	100,000
	5,000	$500,000

That said subscribers met at the time and place specified and proceeded to elect directors, and that the following persons were duly elected for the term of one year: John Smith, John Jones, Chas. Ford, James Bell, John O'Neil.

(Signed) JOHN SMITH.
JOHN JONES.
CHAS. FORD.
JAMES BELL.
JOHN O'NEIL.

When this document, properly endorsed, is sent to the Secretary of State, he at once issues a charter to the corporation, which reads as follows:

STATE OF WISCONSIN, } *Secretary of State.*
DEPT. OF STATE. }

To all to whom these presents shall come—Greeting:

WHEREAS, A statement duly signed and acknowledged has been filed in the office of the Secretary of State on the 30th day of November, 1881, for the organization of the Milwaukee Water Gas Company, under and in accordance with the provisions of "An act concerning corporations," approved May 24, 1880, and in force July 1, 1880, and all acts amendatory thereof, a copy of which statement is hereto attached; and

WHEREAS, A license having been issued to John Smith, John Jones, Charles Ford, James Bell, John O'Neil, as commissioners, to open books for subscription to the capital stock of said company; and

WHEREAS, The said commissioners having, on the 20th day of December, A.D. 1881, filed in the office of the Secretary of State a report of their proceedings under the said license, a copy of which report is hereto attached:

Now, therefore, I, ——, Secretary of State of the State of Wisconsin, by virtue of the powers and duties vested in me by law, do hereby certify that the said Milwaukee Water Gas Company is a legally organized corporation under the laws of this State.

{GREAT SEAL.}

In testimony whereof, I hereby set my hand and cause to be affixed the great seal of State. Done at the city of Madison this 10th day of January, in the year of our Lord one thousand eight hundred and eighty-two, and of the Independence of the United States the one hundred and seventh.

—— ——,
Secretary of State.

Deeds.

How Real Estate is Transferred. A full Collection of Forms and Models of Conveyances.

A DEED is a writing by which lands, tenements or hereditaments are conveyed, sealed and delivered. It must be written or printed on parchment or paper; the parties must be competent to contract; there must be a proper object to grant; a sufficient consideration; an agreement properly declared; if desired, it must have been read to the party executing it; it must be signed and sealed; attested by witnesses, in the absence of any statute regulation to the contrary; properly acknowledged before a competent officer, and recorded within the time and in the office prescribed by the State wherein executed.

The maker of a deed is the *grantor;* the party to whom it is delivered, the *grantee.* If the grantor have a wife, she must, in the absence of a statute to the contrary, sign and acknowledge the deed; otherwise, after the husband's death, she may claim the use of one-third, during her life.

By a *general-warranty* deed the grantor covenants to insure the lands against all persons whatsoever; by a *special-warranty* deed, he warrants only against himself and those claiming under him. In deeds made by executors, administrators or guardians, there is generally no warranty. A *quit-claim deed* releases all the interest which the grantor has in the land, whatever it may be.

A *deed of trust* is given to a person called a trustee, to hold in fee simple, or otherwise, for the use of some other person who is entitled to the proceeds, profits or use.

A deed may be avoided, by alterations made in it after its execution; by the disagreement of the parties whose concurrence is necessary; or by the judgment of a competent tribunal.

Interlineations or erasures in a deed, made before signing, should be mentioned in a note, and witnessed in proper form. After the acknowledgment of a deed, the parties have no right to make the slightest alteration. An alteration of a deed after execution, if made in favor of the grantee, vitiates the deed. If altered before delivery, such alteration destroys the deed as to the party altering it.

The statutory provisions of the several States and Territories relating to deeds will be found under the head of "Special Laws."

Chancellor Kent's Deed.

This form is given by Chancellor Kent as sufficient to convey an absolute fee in any part of the United States.

I, F. H. Hill, in consideration of three thousand dollars, to me paid by John F. Waite, do bargain and sell to John F. Waite (and his heirs) the lot of land (bounded *or* described), etc.

Witness my hand and seal, *etc.*

Short Deed in California.

I, W. B. Baird, grant to D. D. Parsons all that real property situated in El Dorado county, in the State of California, bounded *(or* described) as follows:

Witness my hand this —— day of ——.

W. B. Baird.

Short Form in Indiana.

Enos Baldwin conveys and warrants to William Green *(description of the premises)* for the sum of four thousand dollars.

Witness my hand and seal this —— day of ——.

ENOS BALDWIN. [L.S.]

Short Form Used in Virginia and Texas.

M. F. Crenshaw doth bargain, sell and grant unto W. H. Cavanagh all *(here follows the description of the real estate conveyed)*.

Witness the following signature and seal.

M. F. CRENSHAW. [L.S.]

Short Form Warranty Deed with Full Covenants.

This conveyance, made this 10th day of May, by C. S. Smith, of Beloit, Wis., to Wm. Evans, of Lansing, Mich., witnesseth:

That in consideration of *(state what)*, the said Smith doth with the said Evans bargain, sell and grant, all, etc. *(here describe the property, and add whatever covenants, conditions, restrictions, limitations, etc., agreed upon)*.

And the said Smith covenants, That he has the right to convey said land to the grantee; that the same is free from all encumbrances; that the grantee shall have quiet possession of said land; that he will execute such further assurances of said lands as shall be requisite; and that he will warrant generally (*or* specially) the property hereby conveyed.

Witness the following signature and seal, *etc.*

General Form of Warranty Deed.

Know all men by these presents: That I, J. A. Yarbro, of Tipton county, in the State of Tennessee, have this 15th day of October, for and in consideration of the sum of three thousand dollars, to me in hand paid, granted, bargained and sold, and by these presents do grant, bargain, sell and convey unto J. B. Coals, of the same place, the following described tract or parcel of land, situate in the county of Shelby, in the State of Tennessee, that is to say *(here follows the description)*.

To have and to hold the premises hereby conveyed, with all the rights, privileges and appurtenances thereto belonging, or in anywise appertaining, unto the said Coals, his heirs and assigns, forever.

And I, the said Yarbro, hereby covenant to and with the said Coals, his heirs and assigns, for myself, my heirs, executors and administrators, to warrant and defend the title to the premises hereby conveyed against the claim of every person whomsoever. * *

In Witness Whereof, I have hereunto subscribed my name and affixed my seal, this —— day of ——. J. A. YARBRO. [L. S.]

Quit-Claim Deed.

Know all men by these presents: That we, W. H. Cooley, of Council Bluffs, Ia., and Mary E., wife of the said Cooley, in consideration of the sum of ——, to us in hand paid by Charles Chapman, of Hastings, Neb., the receipt whereof we do hereby acknowledge, have bargained, sold and quit-claimed, and by these presents do bargain, sell and quit-claim unto the said Chapman, and to his heirs and assigns forever, all our and each of our right, title, interest, estate, claim and demand, both at law and in equity, and as well in possession as in expectancy of, in and to all that certain piece or parcel of land situate, etc. *(give description)*, with all and singular the hereditaments and appurtenances thereunto belonging.

In witness whereof, we have hereunto set our hands and seals, the day and year first above written.

Signed, sealed and delivered, *etc.*

W. H. COOLEY. [L.S.]
MARY E. COOLEY. [L.S.]

Short Form of Trust Deed.

This conveyance, made this —— day of ——, witnesseth:

That Thomas Pritchard, of Mills county, in the State of Iowa, conveys (and warrants) to N. W. Coleman, of Decatur county, in the State of Iowa, for the sum of —— dollars, all the following described real estate, situated in the county of Fremont and State of Iowa, to wit: *(here follows the description)*.

In trust, nevertheless, for the following purposes, to-wit: *(here set forth the objects and purposes to be effected)*.

In witness whereof, said parties have hereunto set their hands, the day and year first above written. *(Signed)* THOMAS PRITCHARD.
N. W. COLEMAN.

Abstract of Title.

ABSTRACTS OF TITLE are brief accounts of all the deeds upon which titles rest, and judgments and instruments affecting such titles — synopses of the distinctive portions of the various instruments which constitute the muniments of title.

The evidences of title are usually conveyances, wills, orders or decrees of courts, judgments, judicial sales, sales by officers appointed by law, acts of the Legislature and of Congress.

CONVEYANCES. The abstract of conveyances should show:

1. Date.

2. Character (*whether an absolute or conditional conveyance; as, in fee, mortgage, or a lease*).

3. Names and residence of parties, and of executors, administrators, guardians, trustees, corporations, officers, or the like.

4. All recitals which materially affect the title.

5. The *testatum* clause. This part of the conveyance embraces :

1. Name of grantor. 2. Name of grantee and words of limitation ; as to " C. D., his heirs and assigns," or, to " C. D. and his assigns," or, to " C. D. and E. F., and the heirs of C. D." 3. The consideration. 4. The description of the premises or parcels. This is generally done by giving the premises at large in the abstract of the first conveyance, and in subsequent conveyances to note each variation. 5. The *habendum* — carefully and accurately stated. 6. The declaration of uses, trusts, limitations, or special agreements, if any. 7. Powers. If a settlement is made in pursuance of articles, or an appointment by virtue of a power, an inspection should be made of the articles of power. A deed executed by attorney should be produced with evidence that the power of attorney was recorded, and that the principal was alive when the deed was executed. 8. Covenants which may affect the vendee, and especially exceptions against encumbrances. 9. By what parties the deed is executed, the fact of signing, sealing, attestation and acknowledgment and recording, as required by statute.

If any of the deeds in the chain of title are quit-claim, the reason therefor should be ascertained.

WILLS. In abstracting wills it is necessary to consider :

1. The date of the testator's death.

2. The court in which the probate is made. The date of letters testamentary, and any change in the executors or administrators, by death, removal, or otherwise.

3. Any charge imposed by the payment of debts, legacies, etc.

4. The persons to whom the lands are devised.

5. Words of limitation, modification, conditions, charges on the devisee, etc.

6. Facts which operate a partial revocation of the will ; as the birth of a child, or the subsequent alteration of the estate inconsistent with the terms of the will.

Codicils should be given in the order of their dates.

ORDERS OR DECREES. Orders or decrees material to the title should be abstracted.

JUDGMENTS. A party claiming title to real estate under an execution must show :

1. A valid judgment.

2. A levy and sale as required by law.

3. A deed. The sheriff's deed must, in general, recite the substance of the execution, the names of the parties, the action, the amount, and the date of the rendition of the judgment by virtue of which the estate was sold, and be executed and acknowledged as required by law.

Judicial sales made by officers, executors, administrators, guardians of minors, lunatics, etc.—

1. Must be examined for the appointment and authority of the person making the sale, and whether his authority continued in force till the sale.

2. The service of summons, notice, or other process, upon all defendants, or persons interested.

3. The appointment of guardians *ad litem* for minors when necessary.

4. The order of sale and its confirmation.

5. The deed.

Other sales include those by assignees or commissioners of insolvents, or assignees of bankrupts and tax sales. In the latter case, the proper records should be examined with the utmost care, in order to detect any omission or defect in compliance with all the requisitions of the statute ; in the former case, the leading points are the authority of the assignee, etc., the order of sale and its confirmation, and the deed.

ACTS OF THE LEGISLATURE may be considered in the same manner as private conveyances. The abstract should show:

1. The date of the act.
2. The title of the act.
3. The recitals of the act:
4. The enacting clause in its own terms.
5. A strict compliance with the terms of the act.

TITLES BY DESCENT. In the absence of deeds pedigree should be ascertained, authenticated and incorporated.

ENCUMBRANCES. Encumbrances may be as follows:

1. Judgments in the county where the land lies.
2. Judgments in the United States courts.
3. Executions from other counties.
4. Mortgages.
5. Liens of the creditors of deceased persons.
6. Dower.
7. Decrees in chancery.
8. Action pending.
9. Taxes.
10. Mechanics' liens.
11. Lien of executor, administrator, guardian, or agent, who pays taxes upon the estate.
12. Leases.
13. Equity of a vendee in possession.
14. Lien of a vendor for purchase-money.
15. Caveats in case of a contested will.
16. Rents assigned in lieu of dower.
17. The levy of a distress warrant upon the property of certain debtors of the United States.

Guaranty.

A GUARANTY is an assurance made by a second party that his principal will perform some specific act. For instance, "A" gives "B" a note, and "C" by endorsing the instrument guarantees to "B" that "A" will pay it at maturity. "C" is the guarantor. His liability is special, and if "B" renews the note when it becomes due, then he is no longer liable. A guaranty for collection is a very different thing from a guaranty of payment. The first warrants that the money is collectible; the latter, that it will be paid at maturity. In the first case the party guaranteed must be able to prove that due diligence was employed in attempting to collect the money; in the second, no such proof is necessary. The only form necessary in guaranteeing a note is writing one's name across the back of it, a process commonly called endorsing.

Guaranty of a Note.

For value received, I guarantee the due payment of a promissory note, dated October 8, 1883, whereby John Paxson promises to pay George Andrews eighty dollars in three months.

ST. LOUIS, October 10, 1883. PETER FABER.

General Guaranty.

I hereby guarantee payment to any person who shall accept and retain this instrument as a guaranty, for all goods which he may from time to time supply to Eugene Parsons, not exceeding at any time the sum of five hundred dollars, this to be a continuing guaranty till specially revoked. Notice to be given me within ten days after its acceptance.

ST. LOUIS, September 8, 1883. DARBY CONGER.

Extension of Time.

In consideration that George Andrews gives to John Paxson additional time to the extent of one month for payment of the indebtedness due him from said John Paxson guaranteed by me, I hereby continue my guaranty for due payment thereof.

January 8, 1884. PETER FABER.

Guaranty of Fidelity.

In consideration of the performance of the agreements and convenants specified in the within agreement by M. M., with my son, A. A., I do hereby bind myself to said M. M. for the true and faithful observation and performance of all the matters and things by said A. A. agreed and covenanted therein, and that he shall well and truly serve said M. M.

Witness my hand this —— day of ——, A.D. ——. P. A.

Landlord and Tenant.

A LEASE is a contract for the possession and enjoyment of real estate on one hand, and for the payment of rent or other income on the other. A landlord is one who holds lands and houses which he lets out to others. A tenant is one who has temporary use of real estate belonging to another, the duration and terms of his occupancy being defined in the lease. In this instrument no particular form of words is necessary; but it is important that all the conditions be plainly set forth, so that no misunderstanding can ensue.

Verbal promises amount to nothing; the law only considers what the lease states, so that the importance of clearness and comprehensiveness in this document is apparent.

Unless expressly prohibited by the lease, the lessor can sublet any part of the property acquired by the lease, or the whole of it.

A married woman cannot lease her property, under the common law; but under the statute, in many of the States, this prohibition is removed, as will be found by consulting the section devoted to the rights of married women. A husband cannot make a lease which will bind his wife's property after his death; even the common law terminates his control with his life. A guardian cannot give a lease extending beyond the ward's majority which the ward cannot annul, if he wishes. But if the ward does not annul the lease, the lessee is bound by it.

When no time is specified in a lease, it is understood to run for one year. A tenancy at will is terminable by notice given from one month to six months, in advance, according to the peculiar statute of the State in which the property exists. In the Eastern States a written notice of three months is the general custom; in the Middle and Southern States, six months, and in the Western States, one month.

The phrase "a term of years" is construed to mean at least two years when the figure is not given.

Leases on mortgaged property, whereon the mortgage was given prior to the lease, terminate when the mortgage is foreclosed.

Where a tenant assigns his lease, even with the landlord's consent, he will remain liable for the rent unless his lease is surrendered or cancelled.

There are a great many special features of the law of landlord and tenant in relation to agricultural tenancy, which the reader will do well to read carefully.

Generally an outgoing tenant cannot sell or take away the manure. A tenant whose estate has terminated by an uncertain event which he could neither foresee nor control is entitled to the annual crop which he sowed

while his estate continued, by the law of emblements. He may also, in certain cases, take the emblements or annual profits of the land after his tenancy has ended, and, unless restricted by some stipulation to the contrary, may remove such fixtures as he has erected during his occupation for convenience, profit or comfort. For, in general, what a tenant has added he may remove, if he can do so without injury to the premises, unless he has actually built it in so as to make it an integral part of what was there originally.

The immovable fixtures are the following: Agricultural erections. Fold-yard walls, cart house, barns fixed in the ground, beast house, carpenter shop, fuel house, pigeon house, pineries substantially fixed, wagon house, box borders not belonging to a gardener by trade, flowers, trees, hedges. Ale-house bar, dressers, partitions. Locks and keys. Benches affixed to the house. Statue erected as an ornament to grounds, sun-dial. Chimney piece not ornamental. Closets affixed to the house. Conduits. Conservatory, substantially affixed. Doors. Fruit trees, if a tenant be not a nurseryman by trade. Glass windows. Hearths. Millstones. Looms substantially affixed to the floor of a factory. Thrashing-machines fixed by bolts and screws to posts let into the ground.

Short Form of Lease.

John Parks leases to George Drake *(description of premises)*, for a term of ——, upon the payment of ——.

Dated the 1st day of May, 1883. JOHN PARKS.

Common Form of Lease.

THIS INSTRUMENT, Made the 1st day of May, 1883, *Witnesseth*, That Dominic Holden, of the city of St. Louis, State of Missouri, hath rented from William Hicks, of St. Louis, aforesaid, the dwelling and lot 82 Chouteau Avenue, situated in said town of St. Louis, for five years from the above date, at the yearly rental three hundred dollars, payable monthly, on the first day of each month, in advance, at the residence of the said William Hicks.

At the expiration of said above mentioned term, the said Holden agrees to give the said Hicks peaceable possession of said dwelling, in as good condition as when taken, ordinary wear and casualties excepted.

In witness whereof, we place our hands and seals the day and year aforesaid.

Signed, sealed and delivered in presence of JOHN DOGHERTY, *Notary Public.* — DOMINIC HOLDEN. [L.S.] — WILLIAM HICKS. [L.S.]

Lease of Farm and Buildings.

THIS INDENTURE, Made this ninth day of June, one thousand eight hundred and eighty-two, between Raymond Johnston, of the township of Lake, county of Ripley, and State of Missouri, of the first part, and Anson Lee, of the said township and county, of the second part,

Witnesseth, That the said Raymond Johnston, for and in consideration of the yearly rents and covenants hereinafter mentioned, and reserved on the part and behalf of the said Raymond Johnston, his heirs, executors and administrators, to be paid, kept and performed, hath demised, set and to farm let, and by these presents doth demise, set and to farm let, unto the said Anson Lee, his heirs and assigns, all that certain piece, parcel or tract of land situate, lying and being in the township of Lake aforesaid, known as lot No. *(description of farm here)*, now in the possession of Joel Hancoe, containing one thousand acres, together with all and singular the buildings and improvements, to have and to hold the same unto the said Anson Lee, his heirs, executors and assigns, from the first day of July next, for and during the term of seven years thence, next ensuing, and fully to be complete and ended, yielding and paying for the same, unto the said Raymond Johnston, his heirs and assigns, the yearly rent, or sum of two thousand dollars, on the first day of July in each and every year, during the term aforesaid, and at the expiration of said term, or sooner if determined upon, he, the said Anson Lee, his heirs or assigns, shall and will quietly and peaceably surrender and yield up the said demised premises, with the appurtenances, unto the said Raymond Johnston, his heirs and assigns, in as good order and repair as the same now are, reasonable wear, tear and casualties, which may happen by fire, or otherwise, only excepted.

In witness whereof, we have hereto set our hands and seals.

Signed, sealed and delivered in the presence of JOSEPH JARLEY. — RAYMOND JOHNSON. [L.S.] — ANSON LEE. [L.S.]

Lease of a Mill.

THIS AGREEMENT, Made this first day of January, between George Bain, of St. Louis, Mo., in St. Louis county, and State of Missouri, of the first part, and James Meek, of Marissa, in St. Clair County, and State of Illinois, of the second part, witnesseth:

That the said party of the first part, for and in consideration of the rents, covenants and agreements hereinafter mentioned, reserved and contained, on the part and behalf of the party of the second part, his executors, administrators and assigns, to be paid, kept and performed, doth lease the mill property of the party of the first part, being one of the mills known and designated as the Atlantic Mills, in the city of St. Louis, together with all the machinery now in the same belonging to the said party of the first part, and all stoves, boilers, fixtures, heaters and machinery, and every article now in the said mill which appertains to the same, and is necessary to its successful operation; and also all the dwellings and storehouses used in connection with said mill, which now belong to said party of the first part.

And the said party of the first part further agrees to pay all taxes and insurances on said premises, and to furnish water-power, water-wheels, main-shafting and gearing sufficient at all times to keep in constant and full operation said mill, and all the running works of the same, and all machinery driven by water-power now in said mill.

And the said party of the first part further agrees to secure to the said party of the second part the quiet and peaceable possession of all and every part of said premises, machinery and tools, and all grounds appertaining to said mill, and all passage ways to and from the same which are now used and may be necessary for the accommodation of the same, for five years from the first day of April next.

It is mutually understood and agreed between the parties hereto, that in case said mill should be necessarily stopped from casualty, or in case there shall be a want of or failure of water-power, the rent above mentioned to be paid shall cease, and not be chargeable during the continuation of such stoppage, want or failure.

In witness wherof, etc.

Landlord's Agreement.

This is to certify that I have this first day of May, 1883, let and rented unto Dominic Holden my house and lot known as number 82 Chouteau

Avenue, in the city of St. Louis, Missouri, with the appurtenances and sole and uninterrupted use thereof for five years, to commence on the first day of June next, at the yearly rental of three hundred dollars, payable monthly in advance on the first day of each and every month.,

WILLIAM HICKS.

Tenant's Agreement.

This certifies that I have hired and taken from William Hicks his house and lot, number 82 Chouteau Avenue, in the city of St. Louis, Missouri, with appurtenances thereto belonging, for five years, to commence on the first day of June, 1883, at a yearly rental of three hundred dollars, to be paid monthly in advance.

DOMINIC HOLDEN.

Notice to Quit.

To Charles Egan :

SIR : Please observe that the term of one year for which the house and land at No. 380 Walnut Street, and now occupied by you, were rented to you, expired on the first day of June, 1883, and as I desire to repossess said premises, you are hereby requested and required to vacate the same.

Respectfully yours,

ST. LOUIS, June 8, 1883. AMOS NORTON.

Tenant's Notice of Leaving.

Mr. Amos Norton :

Take notice that I shall, on the first day of May next, deliver up to you the premises I now occupy as your tenant, known as No. 380 Walnut Street, in the city of St. Louis. CHARLES EGAN.

ST. LOUIS, April 1, 1883.

Rights of Married Women.

THE common law of the United States has some curious provisions regarding the rights of married women, though in all the States there are statutory provisions essentially modifying this law. As it now stands the husband is responsible for necessaries supplied to the wife even should he not fail to supply them himself, and is held liable if he turn her from his house, or otherwise separates himself from her without good cause. He is not held liable if the wife deserts him, or if he turns her away for good cause. If she leaves him through good cause, then he is liable. If a man lives with a woman as his wife, and so represents her, even though this representation is made to one who knows she is not, he is liable the same way as if she were his wife.

In many of the States ante-marriage contracts are recognized, and they will secure to married women even greater privileges than are intended to be secured by statute, or greater powers and rights may be secured by transferring the property owned by them to trustees. Such instrument should clearly set forth what the trust is, and should be carefully drawn.

When estates are to be settled where the widow is entitled to a dower interest, some definite calculation is necessary to learn how long she will probably live and the present value of her interest in the estate. For this purpose the following table is generally used. When the sum is ascertained the estate can be promptly settled.

Expectation of Life.

Age.	Expectation in years.	Age.	Expectation in years.	Age.	Expectation in years.	Age.	Expectation in years.	Age.	Expectation in years.
0	28.15	20	34.22	40	26.04	60	15.45	80	5.85
1	36.78	21	33.84	41	25.61	61	14.86	81	5.50
2	38.74	22	33.46	42	25.19	62	14.26	82	5.16
3	40.01	23	33.08	43	24.77	63	13.66	83	4.87
4	40.73	24	32.70	44	24.35	64	13.05	84	4.66
5	40.88	25	32.33	45	23.92	65	12.43	85	4.57
6	40.69	26	31.93	46	23.37	66	11.96	86	4.21
7	40.47	27	31.50	47	22.83	67	11.48	87	3.90
8	40.14	28	31.08	48	22.27	68	11.01	88	3.67
9	39.72	29	30.66	49	21.72	69	10.50	89	3.56
10	39.23	30	30.25	50	21.17	70	10.06	90	3.43
11	38.64	31	29.83	51	20.61	71	9.60	91	3.32
12	38.02	32	29.43	52	20.05	72	9.14	92	3.22
13	37.41	33	29.02	53	19.49	73	8.69	93	2.40
14	36.79	34	28.62	54	18.92	74	8.25	94	1.98
15	36.17	35	28.22	55	18.35	75	7.83	95	1.62
16	35.76	36	27.78	56	17.78	76	7.40		
17	35.37	37	27.34	57	17.20	77	6.99		
18	34.98	38	26.91	58	16.63	78	6.59		
19	34.59	39	26.47	59	16.04	79	6.21		

Real Estate Mortgages.

A CONVEYANCE of property, either real or personal, made in order to secure payment of a debt, is called a mortgage. When the debt is paid the mortgage becomes void and of no value. The word, like many others of our legal terms, comes from the French. "Mort," dead, and "gage," pledge; a "dead-pledge," so called because the property is dead to the mortgageor unless he fulfils the conditions necessary to redeem it. In real estate mortgages the person giving the mortgage retains possession of the property, receives all the rents and other profits, and pays all taxes and other expenses. The instrument must be acknowledged, like a deed, before a proper public officer, and recorded in the office of the county clerk or recorder, or whatever officer's duty it is to record such instruments. All mortgages must be in writing. They must contain a redemption clause and must be signed and sealed. The time when the debt becomes due, to secure which the mortgage is given, must be plainly set forth, and the property conveyed must be clearly described, located and scheduled.



How the Mortgage Generally Terminates.

Some mortgages contain a clause permitting the sale of the property without decree of court when a default is made in the payment either of the principal sum or the interest.

A foreclosure is a statement that the property is forfeited and must be sold.

When a mortgage is assigned to another person, it must be for a valuable consideration; and the note or notes which it was given to secure must be given at the same time.

If the mortgaged property, when foreclosed and brought to sale, brings more money than is needed to satisfy the debt, interest and costs, the surplus must be paid to the mortgageor.

Satisfaction of mortgages upon real or personal property may be either—

1. By an entry upon the margin of the record thereof, signed by the mortgagee or his attorney, assignee or personal representative, acknowledging the satisfaction of the mortgage, in the presence of the recording officer; *or*—

2. By a receipt endorsed upon the mortgage, signed by the mortgagee, his agent or attorney, which receipt may be entered upon the margin of the record; *or*—

3. It may be discharged upon the record thereof whenever there is presented to the proper officer an instrument acknowledging the satisfaction of such mortgage, executed by the mortgagee, his duly authorized attorney in fact, assignee or personal representative, and acknowledged in the same manner as other instruments affecting real estate.

Mortgages of personal property will be found set forth at length under the head of Chattel Mortgages.

Promissory Note Secured by Mortgage.

$1,000. LANSING, MICH., Dec. 1st, 1883.

One year after date I promise to pay to S. H. Moore one thousand dollars at the First National Bank of Lansing, Mich., with interest at the rate of ten per cent per annum, for value received.

This note is secured by a mortgage of even date herewith, on a certain tract or parcel of land situate *(describe the premises)*.

(Signed) R. S MARSH.

Mortgage to Secure Payment of Money, with Power to Sell on Default.

THIS INDENTURE, Made this 20th day of Jan'y, A.D. 1884, between John Stanton, of Norwich, Conn., of the first part, and Lyman Randall, of the same place, of the second part, witnesseth:

That the said party of the first part, for and in consideration of the sum of six thousand dollars, does grant, bargain, sell and convey unto the said party of the second part, and to his heirs and assigns, all *(give a complete description of the premises mortgaged)*, together with all and singular the hereditaments and appurtenances thereunto belonging, or in anywise appertaining.

This conveyance is intended as a mortgage, to secure the payment of the sum of —— dollars, in —— from the day of the date of these presents, with —— interest, according to the conditions of a certain bond, dated this day, executed by the said John Stanton to the said party of the second part; and these presents shall be void if such payment be made.

But in case default shall be made in the payment of the principal or interest, as above provided, then the party of the second part, his executors, administrators and assigns, are hereby empowered to sell the premises above described, with all and every of the appurtenances, or any part thereof, in the manner prescribed by law; and out of the money arising from such sale, to retain the said principal and interest, together with the costs and charges of making such sale; and the overplus, if any there be, shall be paid by the party making such sale, on demand, to the party of the first part, his heirs or assigns, etc.

In witness whereof, said party of the first part has hereunto set his hand and seal the day and year first above written.

Executed and delivered in presence of U. S. GARDNER. } JOHN STANTON. [L.S.]

Assignment of Mortgage.

Know all men by these presents: That I, C. D., of ——, in —— county, State of ——, the mortgagee named in a certain mortgage given by A. B., of ——, in —— county, State of ——, to said C. D., to secure the payment of —— dollars and interest, dated the —— day of ——, recorded in volume ——, on page ——, of the registry of deeds for the county of ——, in consideration of the sum of —— dollars, to me paid by E. F., of ——, in —— county, State of ——, the receipt of which is hereby acknowledged, do hereby sell, assign, transfer, set over and convey unto said E. F., his heirs and assigns, said mortgage and the real estate thereby conveyed, together with the promissory note, debt and claim thereby secured, and the covenants therein contained.

To have and to hold the same to him, the said E. F., and his heirs and assigns, to his and their use and behoof, forever; subject, nevertheless, to the conditions therein contained (and to redemption according to law).

In witness whereof, I have hereunto set my hand (and seal), this —— day of ——.

Executed and delivered in presence of —— ——. } [*Signature.*] [*Seal.*]

Release or Discharge of Mortgage.

This debt, secured by the mortgage dated the twenty-fifth day of January, in the year of our Lord one thousand eight hundred and eighty-three, and recorded with mortgage deeds volume two, page two hundred and six, has been paid to me by Martin Klotz, and in consideration thereof I do discharge the mortgage, and release the mortgaged premises to said Martin Klotz and his heirs.

Witness my hand and seal, December 5th, 1883.

BENJAMIN EATON. [L.S.]

Executed and delivered in presence of GEORGE SMITH. }

CITY OF ST. LOUIS, STATE OF MISSOURI, } ss. DECEMBER 5th, A.D. 1883.

The said Benjamin Eaton acknowledged the foregoing instrument to be his free act and will, *Before me,*

GORDON SMITH,
Clerk of Circuit Court.

Shortest Form of Mortgage.

I, Joseph Smith, in consideration of five hundred dollars, to me paid by Finley Burke, do mortgage unto Finley Burke, and his heirs, the following tract of land *(describe it)*.

To secure the payment of *(state what amounts, places, times, etc.)*

JOSEPH SMITH. [L.S.]

Chattel Mortgages.

CHATTEL mortgages are mortgages on personal property. Most of the rules applicable to mortgages on real estate apply also to those on personal property, though in some States there are laws regulating personal mortgages. Any instrument will answer the purpose of a chattel mortgage which would answer as a bill of sale, with a clause attached providing for the avoidance of the mortgage when the debt is paid. As with real estate, so with a chattel mortgage, great care should be taken.

A chattel mortgage will not cover property subsequently acquired by the mortgageor. Mortgages of personal property should contain a clause providing for the equity of redemption. A mortgagee may sell or transfer his mortgage to another party for a consideration, but such property cannot be seized or sold until the expiration of the period for which the mortgage was given. Mortgages given with intent to defraud creditors are void.

Form of Chattel Mortgage.

Know all men by these presents: That I, John Johnson, of the city of Chicago, in the county of Cook, and State of Illinois, am justly indebted unto James Lewis, of the same place, in the sum of —— dollars, on account, to be paid on the —— day of ——, with interest from this date.

Now, therefore, in consideration of such indebtedness, and in order to secure the payment of the same, as aforesaid, I do hereby sell, assign, transfer and set over unto the said James Lewis, his executors, administrators and assigns, the goods and chattels mentioned in the schedule hereto annexed, and now at the residence No. 1410 Jackson Street, in the city of Chicago aforesaid.

Provided, however, that if the said debt and interest be paid, as above specified, this sale and transfer shall be void; and this conveyance is also subject to the following conditions:

The property hereby sold and transferred is to remain in my possession until default be made in the payment of the debt and interest aforesaid, or some part thereof; but in case of a sale or disposal, or attempt to sell or dispose of the same, or a removal of or attempt to remove the same from said residence aforesaid, or an unreasonable depreciation in value (*or* if from any other cause the security shall become inadequate), the said James Lewis may take the said property, or any part thereof, into his own possession.

Upon taking said property, or any part thereof, into his possession, either in case of default, or as above provided, the said James Lewis shall sell the same at public or private sale; and after satisfying the aforesaid debt and the interest thereon, and all necessary and reasonable costs, charges and expenses incurred by him, out of the proceeds of such sale, he shall return the surplus to me or my representative.

In witness whereof, I have hereunto set my hand and seal, this —— day of ——.

Executed in presence of } JOHN JOHNSON. [L.S.]
WM. F. GEORGE. }

Release and Satisfaction of Mortgage.

Know all men by these presents: That the debt secured by mortgage upon the following described —— property, situated in ——, in —— county, in the State of ——, to wit: *(describing it)*, wherein John Johnson is grantor, and James Lewis is grantee, and dated ——, a —— of which is —— in volume ——, page ——, in the office of the (register *or* recorder) of deeds of —— county, ——, has been fully satisfied, in consideration of which said mortgage is hereby released.

JAMES LEWIS.

Witness: ——.

Mechanic's Lien.

THE purpose of all lien laws is to retain the possession of personal property in the hands of the owners until it has been properly paid for. Without possession no lien is admitted at common law. It is a created right, for the benefit of mechanics, tavern-keepers, liverymen, pasturers and carriers. Builders and persons furnishing material are given by statute a lien on both land and building, if their claim is made within the time named in the different statutes. These periods will be found, under their appropriate heads, in another chapter. No possession is necessary under this lien, and the right of redemption is lost by the sale of the property under the lien. The surplus, of course, goes to the owner. Liens are foreclosed by order of court, upon petition duly made. Liens will lie against vessels and wharves as well as other buildings.

When a mechanic desires to draw up a lien for the recovery of money due him for labor or material, the form given below will be found convenient. It is a statement addressed to the county clerk setting forth his bargain, the failure to receive his pay, and the fear that he will lose the money unless the lien be now made. This paper must be sworn to and filed in the county clerk's office, and if it is not paid in a reasonable time the property will be sold for the debt. It does not make any difference if it is the contractor or the owner of the building who is in default. The mechanic has nothing to do with either of them—he holds the property itself for his money; and even if the owner has paid the contractor, who should have paid the laborer, the property will be sold unless the laborer is paid.

Sub-Contractor's or Workman's Notice.

To ——— ———:

You are hereby notified that I have been employed by ——— to *(here state whether to labor or furnish material, and substantially the nature of the contract)* upon your *(here state the building, and where situated, in general terms)*; and that I shall hold the *(building, or as the case may be)* and your interest in the ground liable for the amount that *(is or may become)* due me on account thereof.

(Signature.)

This notice, with a copy of the contract, if it can be obtained, shall be served within 40 days after payments should have been made. The owner may retain money due the contractor to pay such claims, and if there is not enough to pay them in full, he shall pay them *pro rata*. If such payment shall not be made within ten days after the same may become due, suit may be brought to enforce it.

Wills.

A WILL is an instrument of writing declaring what a person desires to have done with his property after his demise. Any one of lawful age and sound mind can make a valid will, although in some States during the lifetime of their husbands married women cannot do so. A will only becomes of force upon the death of the maker, and can be changed or modified at his pleasure until that event occurs. The last will annuls all previous ones, unless it be a codicil or amendment to a previous will. A

great deal of latitude is allowed in the construction of a will. For instance, if the testator marries after making a will, or has children subsequent to its date, it is supposed that he intended to change the disposition of his property, and the law accordingly will change it for him. Courts do not always require written wills; sometimes what are called nuncupative wills are admitted to probate. These depend upon the testimony of witnesses, and are uncertain and dangerous. Many of the States will not admit nuncupative wills unless made within ten days before death, or by persons in the army or navy.

A wife cannot be deprived of her right of dower, which is one-third of the proceeds of the real estate and appurtenances of her husband. She may be devised property in lieu of dower, which she can so take or not, as she may choose; but if the words "in lieu of dower" are not used, she may take the bequest and her dower also.

A corporation cannot accept bequests unless that power is expressly granted in its charter.

No one can serve as executor of a will who is under age, a lunatic, a drunkard or a convict. An executor may decline the trust if he chooses, which declension must be made in the presence of two witnesses. There is no difference in the duties of an executor and administrator; the names have this origin: the executor is appointed by the person making the will, the administrator is appointed by the court.

When a married woman makes a will, her husband must be appointed administrator in preference to any one else.

No witness to a will can inherit any property under it. They are not required to know what the will contains, but simply to witness the signing of the document.

Executors and Administrators.

AS soon after the death of the testator as may be possible, the will must be produced in court, and filed there with affidavits, showing its custody and the death of the testator. The judge orders publication to be made, advertising the day when the will is to be offered for probate, and notices must be sent to the heirs-at-law. At the appointed time, all of the persons interested, including the executor or executors, assemble in court. The witnesses swear to the signature of the will, and to the state of the testator's mind at the time the will was signed. Letters of administration are then granted to the executor, and a certified copy of the will and of the letters should be recorded in every county where the deceased owned real estate. The person administering must give a bond in double the amount of the estate for the faithful discharge of his duties. When a person owning property dies intestate, that is, leaving no will, it becomes the duty of the next of kin, or the widow, to petition the Probate Court for letters of administration

As soon as the letters are granted, the administrator or executor addresses himself to the settlement of the estate. This is done by advertising for all persons owing the estate to settle the same, and for creditors of the estate to present their claims. At the same time a careful inventory of the property of the deceased is made, and the same appraised. This appraisement and inventory is filed in the Probate Court. The first money coming in is applied to the payment of the funeral expenses and the medical and nurses' bills; next in order come debts to the Government, liens or mortgages, and, last of all, general debts of all kinds. If there is not enough property to pay the debts, the Probate Court must be at once notified of this insolvency, and the estate must then be settled according to the insolvent laws.

The administrator is responsible for all the property of the deceased, valued and listed according to the inventory and appraisement, and he must keep very careful accounts of all his transactions for the estate. He must make semi-annual reports of the condition of the property, and when everything is ready for settlement, he presents a report, called his final settlement, to the court, and, upon presentation of the receipts in full of the heirs and creditors, he is discharged from his office and his bond cancelled and destroyed.

Short Form for a Will.

I, James Dickson, of the city of Chicago, in the county of Cook, and State of Illinois, being of sound mind and memory and understanding, do make my last will and testament in manner and form following:

First. I give and bequeath to my daughters Mary and Jane two thousand dollars each after they have attained the age of twenty years.

Second. I give and bequeath to my wife Susan all my household furniture, and all the rest of my personal property, after paying from the same the legacies already named, to be hers forever: but if there should not be at my decease sufficient personal property to pay the aforesaid legacies, then so much of my real estate shall be sold as will raise sufficient money to pay the same.

Third. I also give, devise and bequeath to my wife Susan all the rest and residue of my real estate as long as she shall remain unmarried, and my widow: but on her decease or marriage, the remainder thereof I give and devise to my said children and their heirs, respectively, to be divided in equal shares between them.

I appoint my wife Susan sole executrix of this my last will and testament.

In testimony whereof, I hereunto set my hand and seal, and publish and decree this to be my last will and testament, in presence of the witnesses named below, this eighth day of March, in the year of our Lord one thousand eight hundred and eighty-three.

JAMES DICKSON. [L.S.]

Signed, sealed, declared and published by the said James Dickson as and for his last will and testament, in presence of us, who, at his request and in his presence, and in presence of each other, have subscribed our names as witnesses hereto.

JOHN SMITH, residing at Chicago in Cook County.
PETER JONES, " " " " " "

Another Form of Will.

Know all men by these presents: That I, Joseph Atkinson, of Media, in the county of Chester, and State of Pennsylvania, merchant, considering the uncertainty of this life, and being of sound mind and memory, do make, and declare, and publish, this my last will and testament.

First. I give and bequeath unto my beloved wife Mary the use, improvement and income of my dwelling-house, warehouses, lands, and their appurtenances, situate in Nelson township, Chester county, State of Pennsylvania, to have and to hold the same to her for and during her natural life.

Second. I give and bequeath to my son Robert two thousand dollars, to be paid to him by my executor, hereinafter named, within six months after my decease; and I also give, devise and bequeath to my said son Robert the reversion or remainder of my dwelling-house, warehouses, lands and their appurtenances, situate in Nelson township, Chester county, State of Pennsylvania, and all profit, income and advantage that may result therefrom, from and after the decease of my beloved wife Mary.

Third. I give, devise and bequeath to my beloved wife Mary all the residue of my estate, real, personal or mixed, of which I shall be seized or possessed, or to which I shall be entitled at the time of my decease; to have and to hold the same to her and her executors and administrators and assigns forever.

Fourth. I do nominate and appoint my brother James Atkinson to be the executor of this, my last will and testament.

In testimony whereof, I have to this, my last will and testament, contained on two sheets of paper, and to each sheet thereof, subscribed my name and set my seal; and to this, the last sheet thereof, I have here subscribed my name and affixed my seal, this eighteenth day of May, in the year of our Lord one thousand eight hundred and eighty-three.

JAMES ATKINSON. [L.S.]

Signed, sealed, declared and published by the said James Atkinson, as and for his last will and testament, in presence of us, who, at his request and in his presence, and in presence of each other, have subscribed our names as witnesses hereto.

THOMAS MAY, residing at Media, Pa.
JOHN NOLAN, " " " "
HENRY MANN, " " " "

Codicil to a Will.

WHEREAS, I, Richard Roe, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have made my last will and testament, in writing, bearing date the fourteenth day of February, in the year of our Lord one thousand eight hundred and eighty-three, in and by which I have given to the Pennsylvania Institution for Deaf Mutes, in the city of Philadelphia, the sum of one thousand dollars.

Now, therefore, I do, by this my writing, which I hereby declare to be a codicil to my said last will and testament, and to be taken as a part thereof, order and declare that my will is that only the sum of five hundred dollars shall be paid to the said Pennsylvania Institution for Deaf Mutes as the full amount bequeathed to the said institution, and that the residue of the said legacy be given to the person who shall be acting as treasurer at the time of my decease of the Baptist Publication Society, located in the city of Philadelphia, to be expended by the society in such manner as the officers of the said society may deem best for the interests of said society: and, lastly, it is my desire that this codicil be annexed to and made a part of my last will and testament as aforesaid, to all intents and purposes.

In testimony whereof, etc. (as in the form of a will).

Duties of Administrators in Settling Estates.

WHEN a person dies, leaving no valid will behind him, his estate is distributed among his heirs by what is known as *operation of law*. This is regulated by the statute of the State in which the deceased resided at the time of his death. The distribution must be made by an *administrator* duly appointed by law. The administrator is appointed by the court having jurisdiction in such cases, on being satisfied that the person proposed is legally qualified. The appointment must be made with the consent of the person appointed. It is the generally accepted rule that any one is legally competent to be an administrator who is competent to make a contract. Certain classes of persons are disqualified by statute, as in the State of New York, for instance, drunkards, gamblers, spendthrifts, etc. The relatives of the deceased are considered as entitled to the appointment to administer the estate, and the order of precedence is regulated by statute. The husband is to be granted administration on the wife's personal estate, and administration on the husband's estate is to be granted to the widow and the next of kin in the following order if they or any of them will accept:

1. To the widow.
2. To the children.
3. To the father.
4. To the brothers.
5. To the sisters.
6. To the grandchildren.
7. To any other of the next of kin who would be entitled to a share in the distribution of the estate.

The guardians of minors who are entitled may administer for them. In case none of the relatives or guardians will accept, the administration will be given to the creditors of the deceased. The creditor who applies first, if legally competent, is to be preferred. If no creditor applies, any person who is legally qualified may be appointed. In the city of New York the public administrator may administer the estate after the next of kin. In the State of New York the surrogate may select, among the next of kin, any one in equal degree, and appoint him sole administrator to the exclusion of the others. In case there are several persons of the same degree of kindred to the intestate entitled to administration, they are preferred in the following order:

1. Males to females.
2. Relatives of the whole blood to those of the half blood.
3. Unmarried to married women; and should there be several persons equally entitled, the surrogate may grant letters to one or more of them, as his judgment may suggest.

If letters of administration should be unduly granted they may be revoked.

Administration may likewise be granted on certain conditions, for a certain limited time, or for a special purpose.

The powers and duties of an administrator differ from those of an executor only inasmuch as he must distribute and dispose of the estate according to the direction of the law, as he has no will to follow.

First. The administrator must give bond, with sureties, for the faithful execution of his trust.

Second. He must make an inventory of the goods and chattels of the intestate, in accordance with the requirements of the law.

Third. Two copies of this inventory shall be made, one of which will be lodged with the judge of the court, and the other will be kept by the administrator. The latter will be obliged to account for the property mentioned in the inventory.

Fourth. Having completed the inventory, the administrator must then collect the outstanding debts of the intestate, and also pay the debts of the same. The order of payment is regulated by local statutes.

Having liquidated all the debts of the intestate, the administrator will divide the remainder of the assets among the surviving relatives of the deceased. In so doing, he will act under the direction of the court.

Partnership.

A PARTNERSHIP is an agreement between two or more persons to share in the profit and loss arising from the use and application of their capital, labor and skill, in some lawful business, whether the capital be supplied by one, and the labor and skill by another, or each contribute both labor or skill and capital. It is not constituted merely by an interest of different parties in the same thing; the test is, whether there is a participation in profits and a joint liability to loss.

A *general partnership* is one formed for trade or business generally, without limitations; a *special partnership* is one in which the joint interest extends only to a particular concern, as, for example, in the erection of a house; a *limited partnership* is one in which one or more of the partners put in a certain amount of capital, which is liable for the contracts of the firm, but beyond that amount the party or parties advancing are not liable. The regulations concerning the last-named species of partnership, in any particular State where it is recognized, are to be found in the statutes of such State; and a strict compliance with the statutes is necessary, in order to avoid incurring the responsibilities attaching to the position of general partner.

A person who lends his name as a partner, or who suffers his name to continue in the firm after he has actually ceased to be a partner thereof, is still responsible to third persons as a partner.

A partner may buy and sell partnership effects; make contracts in reference to the business of the firm; pay and receive money; draw, and indorse, and accept bills and notes; and all acts of such a nature, even though they be upon his own private account, will bind the other partners, if connected with matters apparently having

reference to the business of the firm, and transacted with other parties ignorant of the fact that such dealings are for the particular partner's private account. So, also, the representation or misrepresentation of any fact made in any partnership transaction by one partner, or the commission of any fraud in such transaction, will bind the entire firm, even though the other partners may have no connection with, or knowledge of the same.

If a partner sign his individual name to negotiable paper, all the partners are bound thereby, if such paper appear upon its face to be on partnership account. So, if the negotiable paper of a firm be given by one partner on his private account, and in the course of its circulation pass into the hands of a *bona fide* holder for value, without notice or knowledge of the fact attending its creation, the partnership is bound thereby.

One partner cannot bind the firm by deed, though he may by deed execute an ordinary release of a debt due the partnership, thereby precluding the firm from a recovery of the same.

If no time be fixed in the articles of copartnership for the commencement of such partnership, it is presumed to commence from the date and execution of such articles. If no precise period is therein mentioned for its continuance, a partner may withdraw at any time, and dissolve such partnership at his pleasure; and even if a definite period be agreed upon, a partner may, by giving notice, dissolve the partnership as to all capacity of the firm to bind him by contracts thereafter made; such partner subjecting himself thereby to a claim for damages, by reason of his breach of the covenant.

The death of either partner, also, dissolves the partnership, unless there be an express stipulation that, in such an event, the representatives of such deceased partner may continue the business in connection with the survivors, for the benefit of the widow and children.

A partnership is dissolved by operation of law; by a voluntary and *bona fide* assignment by any partner of his interest therein; by the bankruptcy or death of any of the partners; or by a war between the countries of which the partners are subjects.

Immediately after a dissolution, a notice of the same should be published in the public papers, and a special notice sent to every person who has had dealings with the firm. If these precautions be not taken, each partner will still continue liable for the acts of the others to all persons who have had no notice of such dissolution.

Partnership Agreement.

This Agreement, made this first day of April, 1873, between Charles Jean and David Sellers, both of St. Louis, Missouri, witnesseth:

The said parties agree to associate themselves as copartners for two years from this date, in the business of buying and selling cotton, under the name and style of Jean & Sellers.

For the purpose of conducting the above-named business, Charles Jean has at the date of this writing invested ten thousand dollars as capital stock, and David Sellers has paid in the like sum of ten thousand dollars, both of which amounts are to be expended and used in common, for the mutual advantage of the parties hereto in the management of their business.

That the details of the business may be thoroughly understood by each, it is agreed that during the aforesaid period accurate and full book accounts shall be kept, wherein each partner shall enter and record, or cause to be entered and recorded, full mention of all moneys received and expended, as well as every article purchased and sold belonging to, or in any wise appertaining to such partnership; the profits, gains, expenditures and losses being equally divided between them.

It is further agreed that once a year, or oftener should either partner desire, a full, just and accurate exhibit shall be made to each other, or to their executors, administrators or representatives, of the losses, profits and increase made by reason of such copartnership. And after such an exhibit is made, the surplus profit, if such there be, resulting from the business, shall be divided between the subscribing partners, share and share alike.

Should either partner desire, or should the death of either of the parties, or other reasons, make it necessary, they will each to the other, or, in case of death of either, the surviving partner to the executors or administrators of the party deceased, make a full, accurate and final account of the condition of the partnership as aforesaid and will fairly and accurately adjust the same.

It is also agreed that in case of a misunderstanding arising with the parties hereto, which cannot be settled between themselves, such difference of opinion shall be settled by arbitration, upon the following conditions, to-wit: Each party to choose one arbitrator, which two thus chosen shall select a third; the three thus chosen to determine the merits of the case and arrange the basis of a settlement.

In witness whereof, the undersigned hereto set their hands the day and year first above written.

Signed in presence of } CHARLES JEAN.
FRANK SMITH, } DAVID SELLERS.
HENRY STILES. }

Notice of Dissolution.

The partnership heretofore existing under the name of Jean & Sellers is this —— day of ——, A.D. ——, dissolved by mutual consent.

CHARLES JEAN.
DAVID SELLERS.

How to Secure a Patent.

A Complete Synopsis of the Rules and Regulations Governing the United States Patent Office.

ANY PERSON who has invented or discovered a new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof, may obtain a patent, provided the invention or discovery has not been known or used by others in this country, and not patented or described in any printed publication in this or any foreign country, and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned. A patent may also be obtained by any person who, by his own industry, genius, efforts and expense, has invented and produced any new and original design for a manufacture, bust, statue, alto-relievo or bas-relief; any new and original design for the printing of woolen, silk, cotton or other fabrics; any new and original impression, ornament, pattern, print or picture to be printed, painted, cast, or otherwise placed on or worked into any article of manufacture; or any new, useful and original shape or configuration of any article of manufacture, the same not having been known or used by others before his invention or production thereof, nor patented or described in any printed publication.

In case of the death of the inventor, the application may be made by his executor or administrator. In such case the oath will be made by the executor or administrator.

In case of an assignment of the whole interest in the invention, or of the whole interest in the patent to be granted, the patent will, upon request of the applicant or assignee, issue to the assignee; and if the assignee hold an undivided part interest, the patent will, upon like request, issue jointly to the inventor and the assignee; but the assignment in either case must first have been entered of record, and of a day not later than the date of the payment of the final fee. The application and oath must be made by the actual inventor, if alive, even if the patent is to issue to an assignee. If the inventor be dead, it may be made by the executor or administrator, or by the assignee of the entire interest.

THE APPLICATION.

All applications for letters patent must be made to the Commissioner of Patents. A complete application comprises the petition, specification, oath and drawings, and the model or specimen when required.

An application for a patent will not be placed upon the files for examination until all its parts, except the model or specimen, are received.

THE SPECIFICATION

Is a written description of the invention or discovery, and of the manner and process of making, constructing, compounding and using the same, and is required to be in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same. It must conclude with a specific and distinct claim or claims of the part, improvement or combination which the applicant regards as his invention or discovery.

In framing the specification the applicant should follow the appended arrangement, such portions as refer to drawings being omitted when the invention does not admit of representation by drawings.

1. Preamble giving the name and residence of the applicant, and the title of the invention.
2. General statement of the object and nature of the invention.
3. Brief description of the drawings, showing what each view represents.
4. Detailed description, explaining fully the alleged invention, and the manner of constructing, practicing, operating and using it.
5. Claim, or claims.
6. Signature of inventor.
7. Signatures of two witnesses.

In original applications the applicant must distinctly state, under oath, whether the invention has been patented to himself, or to others, with his consent or knowledge, in any country.

THE OATH.

The applicant, if the inventor, must make oath that he believes himself to be the first and original discoverer or inventor of the art, machine, manufacture, composition or improvement for which he desires a patent, and that to his best knowledge and belief the same was never before known or used. He must also state his place of residence, and the State or country of which he is a citizen.

When applications are made by an administrator or executor, the form of oath varies accordingly.

DRAWINGS.

The applicant for a patent is required by law to furnish a drawing of his invention, where the nature of the case admits of it.

1. Drawings must be made upon pure white paper of a thickness corresponding to three-sheet Bristol board, and the surface of the paper must be calendered and smooth. India ink only must be used, to secure perfectly black and solid lines.
2. The size of sheet on which a drawing is made must be exactly ten by fifteen inches. One inch from its edges a single marginal line is to be drawn, leaving the "sight" precisely eight by thirteen inches. Within this margin all work and signatures must be included.
3. All drawings must be made with the pen only.
4. Drawings should be made with the fewest lines possible consistent with clearness.
5. Letters and figures of reference must be carefully formed. They must never appear upon shaded surfaces, and, when it is difficult to avoid this, a blank space must be left in the shading where the letter occurs, so that it may appear perfectly distinct and separate from the work. If the same part of an invention appear in more than one view of the drawing, it must always be represented by the same character, and the same character must never be used to designate different parts.
6. The inventor's signature must be placed at the lower right-hand corner of the sheet,

and the signatures of witnesses at the lower left-hand corner; all within marginal line.

7. Drawings should be rolled, not folded, for transmission to the office.

MODELS

Must clearly exhibit every feature of a machine which forms the subject of a claim for letters patent, but should include no other matter than that covered by the actual invention or improvement, unless necessary to the exhibition of the invention in a working model.

Very often a working model is desirable in order to fully and readily understand the operation

EXAMINATION.

Applications are classified and taken up for examination in regular order, those in the same class being examined and disposed of, as far as practicable, in the order in which they are presented.

AMENDMENTS, ETC.

The applicant has a right to amend before or after the first rejection; and he may amend as often as the examiner presents any new references or reasons for rejection.

When an original or reissue application is rejected on reference to an expired or unexpired domestic patent, which substantially shows or describes but does not claim the rejected invention, or to a foreign patent, or to a printed publication, and the applicant shall make oath to facts showing a completion of the invention before the filing of the application for the domestic patent, or before the date of the foreign patent, or before the date at which the printed publication was made, and shall also make oath that he does not know and does not believe that the invention has been in public use or on sale in this country for more than two years prior to his application, and that he has never abandoned the invention, then the patent or publication cited will not bar the grant of a patent to the applicant, *except upon interference.*

When an application is rejected on reference to an expired or unexpired domestic patent which shows or describes, but does not claim, the rejected invention, or to a foreign patent, or to a printed publication, or to facts within the personal knowledge of an employe of the office, set forth in an affidavit of such employe, or on the ground of public use or sale, or upon the mode or capability of operation attributed to a reference, or because the alleged invention is held to be inoperative, or frivolous, or injurious to public health or morals, affidavits or depositions supporting or traversing these references or objections may be received; but they will be received in no other cases, without special permission of the Commissioner.

In case an applicant neglects to prosecute his application for two years after the date when the last official notice of any action by the office was mailed to him, it will be held that the application has been abandoned.

DESIGNS.

Patents for designs are granted for three and one-half years, or for seven years, or for fourteen years, as the applicant may, in his application, elect.

When the design can be sufficiently represented by drawings or photographs, a model will not be required.

Whenever a photograph or an engraving is employed to illustrate the design, it must be mounted upon Bristol board, 10 by 15 inches in size, and properly signed and witnessed. The applicant will be required to furnish ten extra copies of such photograph or engraving (not mounted), of a size not exceeding 7½ inches by 11.

REISSUES.

When the original patent is invalid or inoperative by reason of a defective or insufficient specification, or by reason of the patentee claiming as his invention or discovery more than he had a right to claim as new, a reissue will be granted to the original patentee, his legal representatives, or the assignees of the entire interest, provided the error has arisen from accident, mistake or inadvertence, and without any fraudulent or deceptive intention.

APPEALS.

An applicant for a patent or a reissue, any of the claims of whose application have been twice rejected, may appeal from the decision of the primary examiner to the Board of Examiners-in-Chief, having once paid a fee of $10. The appeal must be made in writing, signed by the applicant or his attorney, and must set forth the points of the decision upon which the appeal is taken.

FORM, DATE AND DURATION OF PATENTS.

Every patent will bear date as of a day not later than six months from the time at which the application was passed and allowed, and notice mailed to the applicant, if within that period the final fee be paid.

A patent will not be antedated.

Every patent will contain a short title of the invention or discovery, and a grant to the patentee, his heirs and assigns, for the term of seventeen years, of the exclusive right to make, use and vend the invention or discovery throughout the United States and Territories thereof.

EXTENSIONS.

Patents granted since March 2, 1861, cannot be extended, except by act of Congress.

CAVEATS.

On payment of a fee of $10, any citizen of the United States who has made a new invention or discovery, and desires further time to mature the same, may file in the Patent Office a caveat setting forth the distinguishing characteristics of the invention and praying protection of his right until he shall have matured his invention. Such caveat shall be filed in the confidential archives of the Patent Office, and shall be operative for the term of one year from the filing thereof.

ASSIGNMENTS.

Every patent, or any interest therein, shall be assignable in law by an instrument in writing. The patentee or his assigns may also grant and convey, in like manner, an exclusive right under his patent for the whole or any specified part of the United States.

Schedule of Fees.

On filing each application for a Patent	$15
On issuing each Original Patent (17 years)	20
On application for Re-issue	30
On application for Extension	50
On granting every extension of Patent (7 years)	50
On each Caveat	10
On appeal to Examiners-in-Chief	10
On appeal to Commissioner of Patents	20
On filing a Disclaimer	10
On application for Design (3½ years)	10
On application for Design (7 years)	15
On application for Design (14 years)	30
On each Trade-Mark (30 years)	25
On each Label (28 years)	6

CORRESPONDENCE WITH THE PATENT OFFICE.

Personal attendance of applicants at the Patent Office is unnecessary, as all business is required to be transacted in writing.

Correspondence should be addressed to "The Commissioner of Patents."

Express charges, freight, postage, and all similar charges, must be fully prepaid to ensure reception.

A letter concerning an application should state the name of the applicant, the title of the invention, the serial number of the application and the date of filing the same.

A letter concerning a patent should state the name of the patentee, the title of the invention, and the number and date of the patent.

All correspondence of the Patent Office will be answered without unnecessary delay. Telegrams must ordinarily be received before three P M. to insure an answer the same day.

AGENTS AND ATTORNEYS.

Any intelligent person of good moral character, upon filing a proper power of attorney, may appear as the agent or attorney in fact of an applicant.

The power of attorney must be filed in all cases before an attorney, original or associate, will be allowed to inspect papers or take action of any kind.

Pension Laws.

ANY person who has been, since the 4th of March, 1861, disabled in the military or naval service of the United States, or in its marine corps, shall, upon making due proof of the fact, be placed on the list of invalid pensioners of the United States. No claim for pension on the part of a State militiaman, or non-enlisted person, on account of disability from wounds received in battle, shall be valid unless prosecuted to a successful issue prior to July 4, 1874.

RATES OF PENSION PER MONTH.

DISABILITIES.	Rate from July 4, 1864	Rate from March 3, 1865	Rate from June 6, 1866	Rate from June 4, 1872	Act of June, '80.*
Loss of both hands	$25 00	.....	.....	$31 25	$72 00
Total disability in both hands	.....	.....	$25 00	31 25	.....
Loss of both feet	20 00	.....	.....	31 25	72 00
Total disability in both feet	.....	.....	20 00	31 25	.....
Loss of sight of both eyes	25 00	.....	.....	31 25	72 00
Loss of sight of one eye, the sight of the other having been previously lost	.....	.....	25 00	31 25	72 00
Loss of one hand and one foot	.....	$20 00	.....	24 00	36 00
Total disability in one hand and one foot	.....	.....	20 00	24 00	.....
Any disability equivalent to the loss of a hand or foot	.....	.....	15 00	18 00	.....
Any disability incapacitating for the performance of any manual labor	.....	.....	20 00	24 00	.....
Any disability resulting in a condition requiring the regular aid and attendance of another person	....	.....	25 00	31 25	June 4, '74. 50 00
Total deafness	.....	.....	.....	13 00	.....

* Rate from June, 1880, in case the disability is permanent and requires the regular aid and attendance of another person. An applicant for increase of pension from $31.25 to $72 per month must furnish the testimony of his physician, or of two credible witnesses, to prove the extent to which he requires the aid and attendance of another person.

The same provision of law which entitles to $31.25 per month entitles to $72 per month, provided that in the latter case the disability is permanent. The loss of a leg above the knee, or an arm at or above the elbow, entitles the person so disabled to a pension of $24 per month after June 4, 1874.

The rates of $10, $12, $14 and $16 per month will be allowed in cases in which the disability bears the same proportion to that produced by the loss of a hand or foot that those rates bear to the rate of $18 per month.

Under the pension law of 1890 the soldier who is wholly incapacitated from earning a living receives the sum of $12 a month, whether the disability was contracted in the service or not; for a lesser degree of disability, $10, $8 or $6.

The first step to be taken by an applicant for pension is to file a declaration before a court of record, or before some officer thereof having custody of its seal, setting forth the ground upon which he claims a pension. Blank forms of declaration are furnished upon request at Commissioner of Pensions office. The identity of the applicant must be shown by the testimony of two credible witnesses, who must appear with him before the officer by whom

the declaration may be taken. A pensioner who may deem himself entitled to an increase of pension should file a declaration on a blank form furnished for the purpose, setting forth the ground upon which he claims such increase. A declaration for increase of pension may be taken before any officer duly authorized to administer oaths.

All invalid pensions granted under the general law will terminate at re-enlistment, or when the disabilities for which they were allowed shall have ceased.

A widow's pension will end at her remarriage, and not be renewable should she again become a widow.

Pensions allowed to dependent mothers and sisters end at remarriage, or when dependence ceases. Pensions allowed to dependent fathers end when the dependence ceases.

The name of any pensioner shall be stricken from the roll upon his or her failure to claim a pension for three years after the same shall have become due.

To entitle a widow or children to pension, the death of the soldier does not need to have been the result of injury received or disease contracted under such circumstances as would have entitled him to an invalid pension had he been disabled.

A widow is entitled to a pension of $8 per month, no matter whether the death of the soldier was due to army service or not. In addition to this rate, she will be allowed $2 per month for each child of the officer or soldier under the age of sixteen years.

In the applications of widows and children for pensions, they are not required to prove that death of husband resulted from the injury or disease on account of which his pension was granted; but, if the husband had not established his claim for an invalid pension, the widow shall prove origin and cause of the fatal disease. Widows will be required to prove their marriage to the person on account of whose service and death the claim is made; also proof of dates of birth of children by copy of church record.

A mother claiming a pension must prove the cause and date of the death of her son; her relationship; that he left no widow or minor child or children surviving; and that, if living, she would be dependent upon him for support.

A father claiming pension on account of the death of his son, upon whom he was dependent for support, must prove facts similar to those required of a mother.

The claim on behalf of minor brothers and sisters should be made by a guardian duly appointed.

In administration of the pension laws, no distinction is made between brothers and sisters of the half blood and those of the whole blood. Evidence in a claim for pension cannot be verified before an officer who is engaged in the prosecution of such claim.

In claims for increase of pension, a fee of $2 will be allowed. All letters of enquiry relative to claims pending in Pension Office should give the number of the claim.

No sum of money due, or to become due, to any pensioner, shall be liable to attachment, levy or seizure, under any legal or equitable process.

Agents for paying pensions shall receive two per centum on all disbursements made by them to pensioners.

No agent, or attorney, or other person, shall demand or receive any other compensation for his services in prosecuting a claim for pension or bounty-land than such as the Commissioner of Pensions shall direct to be paid to him, not exceeding $10.

Every officer, or enlisted or hired man, who has lost a limb, or the use of a limb, in the military or naval service of the United States, is entitled to receive, once every three years, an artificial limb or apparatus, or commutation therefor. The period of three years is reckoned

from the filing of first application after March 2, 1891. The commutation allowed in case of the amputation of a leg is $75; in all other cases, $50. Applications for artificial limbs should be transmitted through the proper pension agent to the surgeon-general of the army.

The Collection of Debts.

HOW TO SETTLE ACCOUNTS.

LEGAL STEPS TO ENFORCE PAYMENT.

THE best way to avoid all trouble with debts, either by owing them or by having them due to you, is to avoid debts altogether. Do not run in debt, and do not give credit unless it is absolutely unavoidable. By following these rules an untold amount of trouble may be saved and greatly increased prosperity secured.

But in modern civilized life it is not possible, as business is done, to prevent debts from being incurred, for so much is transacted upon longer or shorter terms of credit, that it is necessary to give credit and to have money falling due. In order to avoid trouble and loss, adhere strictly to the rule of having the payment due at a certain time and be prompt in collecting. Much more depends upon prompt collection as a means of avoiding trouble and loss than any other single thing It is a mistaken idea that any favor is really done the debtor by not applying to him at the agreed time, for it is often the case that the failure to pay you will simply result in his still continuing to proceed upon a false basis, and end, perhaps, in a failure, which the good habit of paying his debts when due would have enabled him to prevent.

It is a measure of common prudence to take some statement in writing from any person to whom money is loaned, which shall show the amount, when loaned, by and from whom due, and when it is to be repaid. This is done either by taking a due bill or a common promissory note, and whenever accounts are settled or a balance struck and agreed upon, it is well to have something in writing, which should always be signed by the party to whom the payment is made or from whom the payment is due, if any amount is left unpaid.

In all cases where money is loaned on interest, a note should be taken, and, unless the lender is personally acquainted with the business affairs and standing of the borrower, if the amount is considerable or the terms of credit more than a few months, security should be taken. In arranging for security two things are to be considered—

1. The title of the party to the property which he proposes to give as security. This covers the two points of ownership and all prior claims or encumbrances, if any. If the security consists of personal property, it will be necessary to see whether there are executions against the owner in the hands of the proper officers and whether chattel mortgages have been given, as well as that the property is in the possession of the person who proposes to

pledge it as security. If this is to be done by means of a chattel mortgage, then it will be necessary to see that the mortgage is properly acknowledged and recorded, and in every other case the possession of the property should be transferred to the one who takes it as security.

In the case of real estate there should be an Abstract of Title showing the title to the property to be in the person who claims to own it, and that it is clear of all judgments, mortgages and mechanic's liens. The better way is to have the abstract brought down to cover the mortgage or trust deed, which is given as security, after it has been recorded and before the money is actually advanced, to guard against all possibility of anything happening between the time of the execution of the mortgage or trust deed and when it can be recorded.

2. The security given depends directly upon the value of the property transferred, and this should be sufficient in amount to cover all probable contingencies. The rule is not to loan more than half or two-thirds of the value of the property given as security. "Fast bind, fast find," is a good maxim, especially in regard to loaning money, and where ample security is held, the lender can sleep in peace. It is often necessary that fire insurance should be obtained to protect the lender, in which case the policy should be made in the name of the owner and borrower, and have inserted in it a "mortgage clause," as it is called, provided that the loss, if any, shall be paid to the lender as his interest may appear.

REQUEST FOR PAYMENT.

Those who have much experience in any kind of business requiring credit to be given, soon learn, in the dear school of experience, what is necessary to protect their own interests. It is those who have but little to do in this way, or who are about engaging in a new line, that are most likely to suffer from want of knowledge.

Of course, before any suit is brought to recover money which is due, a request or demand for payment should be made, if possible, and there is any hope the money will be paid without suit. Politeness and point should be contained in the request, which may take either the form of an interview or a note, and as payment may result, this ought always to be framed as if payment were expected. If a letter is used, its form will depend upon what has previously taken place, because it is seldom the case that a claim has no previous history, and the kind of demand to be made depends upon what has been done, so that it will range from a polite intimation that the money is due and would be thankfully received, to a short letter informing the debtor that to avoid the trouble and costs of a suit, immediate payment must be made.

COLLECTION AGENCIES.

The tendency of all kinds of business to run into specialties, and for people to follow particular lines of business, to which they give their attention, has led to the formation of what are known as collection agencies, which devote their entire time and skill to the collection of debts.

These are of two kinds, namely: those which are connected with some particular trade or branch of business, and which seek to enforce the payment of debts by means of notifying all those persons who would naturally be called upon to give credit to the debtor, and also those which are organized without any particular connection with any branch of the business, but which have correspondents (chiefly lawyers) throughout the country, and who charge a fixed percentage for collection in ordinary cases. Where these agencies can be used they are often the best means to employ for many different reasons.

COLLECTION BY LAW.

When all reasonable hope of obtaining payment peaceably is gone, consider whether it is worth while to follow the matter any further; and this will depend on two things:

Is it worth the necessary trouble and expense?

Can a judgment be collected?

Sometimes a suit must be brought for the sake of the principle involved and to prevent advantage being taken of you; but if it is merely a business transaction and the only question is

whether it will pay, then find out as well as you can what the result will be before you spend any money on the suit; and learn whether the debtor has property which is not exempt and out of which the officer can make the amount of a judgment.

If you are compelled to proceed with your suit, you can place the account in the hands of some Justice of the Peace whose jurisdiction extends over the place where the debtor can be served with summons, unless the amount is too large, for Justices of the Peace are generally authorized and required to collect accounts placed in their hands; the amount of which a Justice of the Peace has jurisdiction is fixed by the laws of the different States.

JURISDICTION OF JUSTICES OF THE PEACE.

Justices of the Peace generally have jurisdiction throughout the County or Township in which they are elected, and the limit of the amount is as follows:

Alabama	$ 100	Kentucky	$ 50	North Carolina	$ 200
Arizona	300	Louisiana	100	Ohio	100
Arkansas	300	Maine	20	Oregon	500
California	300	Maryland	100	Pennsylvania	300
Colorado	300	Massachusetts	300	Rhode Island	300
Connecticut	100	Michigan	100	South Carolina	100
Dakota, N. 200–S.	100	Minnesota	100	Tennessee	500
Delaware	200	Mississippi	150	Texas	200
Dist. of Columb.	100	Missouri	250	Utah	300
Florida	100	Montana	300	Vermont	200
Georgia	100	Nebraska	200	Virginia	100
Idaho	300	Nevada	300	Washington	300
Illinois	200	New Hampshire	133⅓	West Virginia	300
a Indiana	200	New Jersey	200	*c* Wisconsin	200
b Iowa	100	New Mexico	100	Wyoming	300
Kansas	300	New York	200		

a By confession, $300. *b* By consent, $300. *c* By confession, $300.

SUMMONS AND SERVICE.

The Justice, on request, will issue a summons about as follows:

This summons will be given to a constable who can only serve it upon the debtor within the Town or County, as the case may be where the Justice resides, and in some cases the debtor must be served in the Town where he lives; but all necessary information can be obtained by asking the Justice about it, who will know, and will correctly tell you about the law which applies to himself.

The constable who serves the summons will proceed to do it by reading or delivering a copy, or both at once upon payment of his legal fees. If the debtor is a corporation then the service must be made by delivering a copy of the summons to the proper officer, the President, if he can be found, and in case of his absence the officer must state that he can not be found and service can be had upon some other officer or agent of the corporation.

If the defendant conceals himself to avoid service or can not be found, the officer will write upon the summons what has been done under it, and return it with his written endorsement upon it, stating the facts to the Justice from whom it issued. The Justice will also enter in his docket the names of the parties, the number of the case, the date of the summons, and the name of the officer to whom it was delivered for service; and when the summons is returned he enters a statement of that fact together with the officer's endorsement upon it in his docket.

The summons will state the time and place for trial which is generally not less than five nor more than fifteen days from its date; when and where the defendant is bound to appear if he has been notified according to the law, and generally three days' service before the trial is sufficient.

Form of Summons.

STATE OF ..... } *ss.*
County of..... }

The People of the State of.....*to any constable of said county*—

GREETING:

You are hereby commanded to summon A B to appear before me, at....., on the..... day of. ....., at.....o'clock — M, to answer the complaint of C D for a failure to pay him a certain demand, not exceeding,..... dollars; and hereof make due return as the law directs. Given under my hand, this..... ..day of. ....., 18....

JOHN DOE, *J. P.*

DEFENDANT'S LIABILITY.

It is not safe for any person who has been legally served with summons to neglect the case, even if he owes nothing, and has been sued and served with summons by mistake, for if he does not appear and make his defense a judgment may be rendered against him which he will have to pay. An immediate investigation should always be made when the summons is served, and the time and place of the trial should be written down.

Upon the back of the summons the Justice will indorse the amount of the demand and all the costs already incurred before he gives it to the constable. Payment of this amount to the constable will discharge the debt and prevent any further liability.

COSTS OF SUIT.

The Justice is entitled to charge about twenty-five cents for issuing the summons, and also a docket fee, and the constable is entitled to about fifty cents for serving and returning the same, besides his mileage, which is usually five cents per mile each way.

APPEARANCE.

If the plaintiff appears and is ready for trial a judgment will be entered against the defendant, if the claim is proved and he fails to appear, and the execution will issue upon the judgment. If the defendant should be present and the plaintiff fail to appear, then the suit will be dismissed at plaintiff's cost upon motion of defendant for want of prosecution. This, however, will not bar the claim by a new suit being brought.

CHANGE OF VENUE.

Before the trial is begun the defendant is ordinarily entitled to take a change of venue to the nearest Justice who is not connected with either of the parties to the suit nor interested in its result. This is to prevent the plaintiff from obtaining any advantage by being able to select the Justice to try the case, and to give the defendant the benefit of an impartial trial.

The defendant is required to make an affidavit that he believes he can not obtain an impartial trial before the first Justice, in order to have a change of venue.

CONTINUANCE.

If both parties appear at the time and place named in the summons, but either one of them is not ready to go on with the trial because of the absence of any of his witnesses, or for any other valid reason, then, upon good cause being shown by affidavit, the Justice will grant a continuance of the case to enable the party to prepare for the trial.

The party applying for a continuance must show that he has used due diligence to be ready, and that he has subpœnaed the witness or witnesses whose presence he desires; he must also show what he expects to be able to prove by him, and, if he knows, the reason that he did not attend. It may be that one of the parties may not be able to attend by reason of sickness or unavoidable absence, and then an affidavit must be made on his behalf by some one who appears for him and applies for the continuance.

The party against whom the continuance is asked may usually proceed with the trial by admitting that the absent witness would testify as the party claims, but that does not admit that the matters stated are true. The party may disprove the truth of the statements the same as if the witness had been present and testified to them. If the continuance is granted, then a time and place are set for the trial, when the parties must again appear.

ATTENDANCE OF WITNESSES.

It is very important that the witnesses by whom the facts in dispute can be established or disproved should appear and testify. Without this it is impossible to try the case so as to do justice between the parties. Therefore, the law compels witnesses who are properly notified to appear and testify to the truth so far as they know the facts in relation to the matters involved. For this purpose it is necessary that a paper called a subpœna should be issued by the Jus-

tice, and served upon the witness long enough before the trial to enable him to appear. The subpœna is substantially in the following form:

Form of Subpœna.

STATE OF..... } ss.
County of..... .... }

The People of the State of..... to A.....B.....

You are hereby commanded to appear before me at ....on the.....day of.....at....o'clock....M., then and there to testify to the truth in a matter in suit, wherein C D is plaintiff, and E F, defendant; and this you are not to omit, under the penalty of the law.

Given under my hand, this.....day of.....18..

JOHN DOE, *J. P.*

This can be served by the party or the constable, and at the same time witness fees, usually fifty cents and mileage, should be tendered to the witness. Then, if he refuses to appear, upon proof of those facts being made, an attachment, or warrant, for the arrest of the witness will be issued by the Justice. This will be given to the officer, who will arrest the witness and bring him before the Court, where he will be compelled to testify, and will also be punished for contempt of Court, for failing to obey the subpœna, unless he gives some good excuse.

TRIAL OF THE SUIT.

The case may be tried before the Justice without a jury, or a jury may be demanded by either party, who deposits with the Justice the amount of the jury fees. The jury consists of not less than six nor more than twelve men, and if one party calls for a jury of six, the other party may call for six more, making twelve in all.

If the case is to be tried by a jury the Justice will issue what is called a venire or summons for jurymen and give it to the proper officer, which will be in the following form:

Any free male citizen can serve on a jury, who lives within the jurisdiction of the Justice and is between the ages of twenty-one and sixty years and can read, write and understand the English language, and is not connected with, nor prejudiced for or against either party.

Many persons are by law exempt from jury service, by reason of their employment or official station, but this is a personal privilege and may be waived, so that unless it is claimed by themselves they can serve.

The jury, when impaneled, will be sworn to try the cause according to the law and the evidence, and then the evidence will be produced before the Justice or jury as the case may be.

In all cases the witnesses are sworn by the Justice to tell the truth, the whole truth and nothing but the truth upon the matters in issue between the parties, and each party is entitled to cross-examine the witness produced by the other side, and to argue the case before the judgment is given.

VERDICT AND JUDGMENT.

If the trial is by jury, they will return a verdict in writing substantially in the following form:

"We, the jury, find the issues for the plaintiff and assess his damages at (stating the amount)"; or "We, the jury, find the defendant guilty and

Form of Venire before a Justice.

STATE OF..... ..... } ss.
County of.. ..... }

The People of the State of.....to any constable of said county—

GREETING:

We command you to summon.....lawful men of your county to appear before me at.....,on the.....day of.....18.....,at.. ..o'clock,—M., who are not of kin to.... . ....,plaintiff, or to..... defendant, to make a jury between said parties, in a certain cause pending before me; and have you then and there the names of the jury and this writ.

Given under my hand, this .....day of.....18..

JOHN DOE, *J. P.*

assess the plaintiff's damages at (stating the amount)." But if the jury find for the defendant, then their verdict would be:

"We, the jury, find the issues for the defendant"; or "find the defendant not guilty," according to the form of action; and the verdict is also signed by all of the jurymen. If the party who is beaten desires to do so he can poll the jury, as it is called, which consists in asking the jurymen, one at a time, "Was this, and is this your verdict?" To which the juryman is required to answer, and if any of the jury upon being called, state that it is not their verdict, then they must retire and agree or else they disagree, and the result is a mis-trial, leaving the case to be tried again.

If the case is tried by the Justice, then he enters his finding in writing in his docket, in about the same form as the verdict, and then upon the verdict or finding, he enters judgment or, in other words, writes in his docket that he considers that the plaintiff should recover the amount of the verdict or finding with costs from the defendant; or that the defendant should recover his costs of the plaintiff, for the victorious party is entitled to recover the costs of the case from the one who is beaten.

APPEALS.

Either party has a right to appeal his case, usually to the Circuit Court, and have it tried over again, if he is not satisfied with the result of the trial, upon giving bond for double the amount of the judgment and costs in the form provided by law, which is about as follows:

As soon as the bond is filed and approved, which must be given usually within twenty days from the trial, it operates as a supersedeas, as it is called, and prevents anything further being done in the case until judgment is obtained in the Court above, or the appeal is dismissed.

Sometimes one of the parties will pretend to be dissatisfied with the judgment and pray an appeal in order to prevent the other from doing so, and having allowed the time in which an appeal can be taken to expire will then dismiss it and make the judgment final.

The only way to prevent this is for the party who desires to have an appeal to ask for it and file his bond himself, in which case he can control the matter.

EXECUTION.

The writ which issues from the Justice upon the judgment is called an execution, and runs either against the goods and chattels, or the body, of the one against whom judgment was entered. Whether execution can be obtained in any case authorizing the arrest of the defendant and his imprisonment until the judgment is paid or he is legally discharged will depend upon the law of the State and the circumstances of the case, as this is now an unusual remedy, since imprisonment for debt has been generally abolished.

If the plaintiff avers that the benefit of the judgment will be lost, unless execution issue immediately, he may swear to this fact before the Justice, who will then issue execution at once; but unless this is done the execution will not issue

Form of Appeal Bond.

Know all men by these presents, that we, A B and C D, are held and firmly bound unto E F, in the penal sum of (here insert double the amount of judgment and costs) dollars, lawful money of the United States, for the payment of which, well and truly to be made, we bind ourselves, our heirs and administrators, jointly, severally and firmly by these presents.

Witness our hands and seals, this..... day of..... , 18..

The condition of the above obligation is such, that whereas the said E F did, on the.....day of.....A. D. 18.., before.. . . Justice of the Peace for the County of..... recover a judgment against the above bounden A B, for the sum of.....dollars (or for costs, as the case may be); from which judgment the said A B has taken an appeal to the.. ...court of the County of . ... aforesaid; now, if the said A B shall prosecute his appeal with effect, and pay whatever judgment may be rendered against him by said Court upon the trial of said appeal or by consent, or, in case the appeal is dismissed, will pay the judgment rendered against him by said Justice, and all costs occasioned by said appeal (or, if the judgment appealed from is in favor of the appellant, omit the words "the judgment rendered against him by said Justice, and") then the above obligation to be void; otherwise to remain in full force and effect.

A B, [SEAL.]
C D, [SEAL.]

Approved by me, this .....day of... .... 18..

JOHN DOE, *J. P.*

until the expiration of the time for an appeal, which is usually twenty days.

The execution is directed to the proper officer, and is in the following form:

Execution against Property.

STATE OF..... .... } ss.
.. ...*County.* }

The People of the State of .....,to any constable of said county—

GREETING:

We command you that of the goods and chattels of A B, in your county, you make the sum of ..... dollars and .. ... cents judgment, and .. ... dollars and ..... cents costs, which C D lately recovered before me in a certain plea, against the said A B; and thereof make return to me within seventy days from this date. Given under my hand this ..... day of ..., 18.. JOHN DOE, *J. P.*

Execution against Body.

STATE OF ..... } ss.
.... *County* }

The People of the State of ..... ,to any constable of said county—

GREETING:

We command you, that of the goods and chattels of A B, in your county, you make the sum of ..... dollars and ..... cents judgment, and ..... dollars and ..... cents costs, which C D lately recovered before me against the said A B, and for want of such goods and chattels that you take the body of the said A B, and him convey and deliver unto the keeper of the jail of said county, who is hereby commanded to receive and keep the said A B in safe custody until the said sum and all legal expenses be paid and satisfied, or until he is discharged by due course of law; and hereof make return to me within seventy days from this date.

Given under my hand this.. ... day of ....., 18.. JOHN DOE, *J. P.*

This is placed in the hands of the constable, and it commands him to levy upon and sell enough of the personal property of the debtor to satisfy the judgment and make return within the time limited, to the Justice, showing what has been done.

Although the execution has been delivered to the officer, it is still under the control of the plaintiff and the officer is bound to obey any lawful direction he may give; but in case of interference by him he may lose the benefit of the execution, and also his remedy against the officer.

The constable must take care that he obtains sufficient property to satisfy the judgment if the debtor has it, and it is not exempt by law; and on the other hand, he must be equally careful not to levy upon property which belongs to others or which is exempt from execution by law. Sometimes the plaintiff desires property to be levied upon, which the officer is not willing to seize, and in such case an indemnifying bond is generally required and given, the condition of which is that the plaintiff will pay all costs and damages which the officer may incur by taking such property.

If the constable holds the execution beyond the time when he is directed by it to return it to the Justice, he ordinarily makes himself and his bondsmen personally liable for the amount of the judgment.

ATTACHMENT.

Where the debtor is a non-resident or conceals himself to evade service of the summons, or stands in defiance of the officer, or has contracted the debt by means of a false statement in writing signed by himself, or has fraudulently concealed or disposed of his property within two years last past, or is about to do so or to remove his property or effect from the State for the purpose of hindering, delaying or defrauding his creditors, but has property within the juris-

diction of the Justice which is subject to levy, in order to prevent the benefit of the judgment being lost the law provides that a writ of attachment against the property may issue in the first instance, upon a proper affidavit having been made and filed with the Justice by the plaintiff, which must particularly set forth the facts and is about as follows:

As soon as the writ is issued it is placed in the hands of the constable, who will levy upon sufficient property to pay the claim and all costs. If the debtor shall be found the writ will be served on him in the same way as an ordinary summons and will answer the same purpose, but if the debtor is no found then the constable will indorse upon the writ what property he has

Affidavit for Atthchment.

STATE OF.....} ss.
County of.....}

A B, being duly sworn, says: That (here state if affiant is agent or attorney of the creditor, and if the suit is by firm, the name of the partners,) has a just demand against (name of debtor), on account of (here make short statement of the nature of the demand), and the affiant believes (the name of the creditor) is entitled to recover of said (name of debtor), after allowing all just credits and set-offs,.....dollars and.....cents, which is now due, and that he has good reason to believe and does believe that (name of debtor) (here state some one or more of the causes which authorize an attachment), the said (name of debtor) (here state the residence of the debtor if known, or if not, that the affiant has made diligent inquiry and can not ascertain his place of residence).

A bond is usually required from the plaintiff before an attachment will issue, about as follows:

seized under it, and that he has been unable to find the debtor, and he will hold possession of

Condition of Bond for Attachment.

The condition of the above obligation is such that, whereas the above bounden .....hath, on the day of the date hereof, prayed an attachment at the suit of .....against the personal estate of the above named... .... for the sum of..... .., and the same being about to be sued out, returnable on the.....day of....., before (said Justice). Now, if the said.....shall prosecute his suit with effect, or in case of failure therein, shall well and truly pay and satisfy the said.....all such costs in such suit, and such damages as the said.....may sustain, by reason of wrongfully suing out the said attachment, then the above obligation to be void; else to remain in full force and virtue.

Witness our hands and seals, this.....day of....., 18..

The affidavit and bond having been duly filed, then the writ of attachment will issue usually in the following form:

the property so attached until the case is tried. Notice by publication or posting is usually given to the debtor, and in case the plaintiff proves

Form of Writ of Attachment.

STATE OF.....} ss.
County of.....}

The People of the State of....to any constable of said county—GREETING:

Whereas, A B (or agent or attorney of A B, as the case may be) hath complained that E F is justly indebted to the said A B in the amount of.....dollars; and that the said E F (here state the cause as in the affidavit) and the said A B, having given bond and security according to law: We, therefore, command you that you attach so much of the personal estate of the said E F to be found in your county, as shall be of value sufficient to satisfy the said debt and costs; and such personal estate so attached in your hands to secure, or so to provide that the same may be liable to further proceedings thereon, according to law, before the undersigned Justice of the Peace. And that you summon the said E F to appear before me, at my office, on the.....day of....., next, and that you also summon, as garnishees, all persons, whom the plaintiff or his agent shall direct to appear before me at the same time and place, then and there to answer what may be objected against him or them, when and where you shall make known how you have executed this writ: and have you then and there this writ:

Given under my hand and seal, this.....day of.....18..

C D, *Justice of the Peace.* [SEAL.]

his claim when the suit comes on for trial then a special execution directed only against the property attached is issued, and unless the debtor has been served, no general or personal judgment can be rendered against him, but it only goes against the property which has been attached.

If the debtor desires it, whether he has been served or not, he can appear at the time and place of trial and contest the justice of the claim or the right of attachment, or both, and the two issues so presented will be tried and determined as in ordinary suits, and judgment will be entered upon the verdict or finding in each case.

GARNISHMENT.

One of the most usual ways of obtaining the benefit of attachment is by serving the writ on some one who owes money to the principal debtor and who is named as a garnishee, and upon such service, the garnishee, who is usually entitled to witness fees and mileage, is bound to appear at the time and place of trial and be examined upon oath as to any property in his possession which belongs to the debtor, or any claims due to him from the garnishee, and, upon proper proceedings being had, a judgment will be entered, which will bind the garnishee to deliver such property or pay such claims for the benefit of the plaintiff.

In case a final judgment has been obtained and the execution returned unsatisfied, then, by making a proper affidavit, a garnishee summons may be issued and served in the same manner as the writ of attachment upon any person or persons who are owing money to the judgment debtor, or who have in their hands goods or effects belonging to him.

LIEN OF WRIT.

A writ of execution becomes a valid claim and binds the property of the person against whom it is issued from the time it is delivered to the constable or other proper officer, so that a sale or purchase from that time is subject to be set aside and the property applied in payment of the execution.

This is of great importance in dealing with persons against whom writs of execution have been issued and placed in the hands of an officer, because no valid sale can be made of such property and the purchaser gets no title. A writ of attachment, however, only becomes a lien from its levy, so that no one is likely to purchase property against which there is an attachment.

ARREST BEFORE SUIT.

Although imprisonment for debt has been abolished, yet, in certain cases, in most of the States and Territories, persons, against whom there are claims existing, are liable to be arrested and held until satisfaction of the claim, either because the claim grows out of some wrong that has been done to the plaintiff or because the debtor refuses to turn over his property in satisfaction of an execution. The writ for arrest is called a capias, and is very seldom used, and, in most cases, it would be unsafe to employ this remedy without legal advice. In all cases an affidavit and bond are required before the Justice will issue the capias, which will be about in the following form:

Form of Capias.

STATE OF .....} ss.
County of .....}

The People of the State of .....*to any constable of said county—*

GREETING:

You are hereby commanded to take the body of..... .....and bring him forthwith before me, unless special bail be entered; and if such bail be entered, you will then command him to appear before me at ....on the..... .....day of..... .....,at ....o'clock....M., to answer the complaint of A B for failure to pay him a certain demand, not exceeding $.. ..... ; and hereof make due return as the law directs. Given under my hand this..... .....day of..... 18

JOHN DOE, *J. P.*

When the capias or order for the arrest is placed in the hands of the officer it is a warrant for that purpose and he is bound to arrest the defendant if he can be found and bring him forthwith before the Justice who issued the writ, unless some responsible person can be found who will become surety for the appearance of the defendant for the trial. This is called "going bail" and is usually in the form of a short undertaking signed by the one who becomes surety or "goes bail."

In all cases the Justice indorses upon the back of the capias the amount of bail, which will be required in order to liberate the defendant from arrest pending the trial. The bail is only held for the appearance of the defendant at the time and place of trial and that he shall surrender himself in execution in case he does not pay the judgment against him, and if he fails to appear or surrender them the person who became surety will be bound to pay the amount of the claim, with costs.

Execution against the body may also be issued after judgment as above, but this is also unusual.

PRIVILEGE FROM ARREST.

Many officials and many persons are privileged from arrest, particularly voters in going to and returning from elections, attorneys and witnesses attending Courts on business, and judges and other officers of the Court and in many cases militia men while going and returning from general drills or musters.

LEVY AND SALE UNDER EXECUTION.

Although, as we have seen that the execution becomes a lien from the time of its delivery to the officer, in order to ripen into a title and hold the property, it is necessary that a levy should be made upon the property which is to be sold to pay the judgment and costs. This requires that an actual seizure of the property be made, and that the officer should take such possession of it as will be notice of his claim and will exclude the owner and all other persons from its use and enjoyment.

The constable is required to advertise the sale generally for ten days, and then he must sell at public auction, offering the property in such lots or parcels as will probably bring the greatest amount. During the time it is in his care, he must see that it is safely kept for the benefit of all parties; and in case an unnecessary sacrifice must result he must postpone the sale from time to time.

It is his duty to seize enough property to cover the amount of the judgment with interest and costs, remembering that the property is to be sold at a forced sale and that it will probably not bring full value; but at the same time he must be careful not to make an excessive levy as he would then be liable to the debtor in damages.

The levy must be made according to the nature of the things taken, and they must be reduced to possession so far as can reasonably be done, but it is plain that a pile of saw logs or building materials can not be handled in the same way that would be required if the property were portable and easily stored.

Notice of the levy must also be posted showing that the property has been seized and for what causes.

After the sale the constable should indorse upon his execution what he has done with the property upon its sale and the amount realized and the application of the proceeds, and whenever enough is obtained to pay the judgment with interest and costs, then the sale should be stopped and the balance of the property be returned to the debtor.

The execution with its indorsement of sale remains with the files in the hands of the Justice and is a permanent record of what was done in the case.

LIEN ON REAL ESTATE.

When the plaintiff fails to obtain satisfaction of his judgment out of the personal property of the debtor, he can, in most States, obtain a transcript of the judgment or copy of the docket

entries together with the original papers in the case from the Justice, and file the same with the clerk of the Circuit Court.

The judgment will then become a lien upon the real estate of the debtor in that county in exactly the same manner as if a judgment rendered in the Circuit Court, and execution will issue and the land may be sold in the manner provided by law for the satisfaction of judgments in a Court of Record.

CREDITOR'S BILL.

Where the judgment can not be collected by ordinary process of law, but the debtor has assets which can be reached by a bill in chancery or proceeding in equity, then, if the amount is sufficient, this may be done, and property held in the name of others for the benefit of the debtor; patent rights and other valuable interests belonging to him, but which can not be sold on execution, may be subjected to the payment of the debt. This is done by putting the debtor and those who are claimed to hold rights or property for him upon oath as to the extent and value of the debtor's interest, and by the appointment of a receiver, who is entitled to take possession of the property in question; and, through the medium of the Court he obtains all the rights the debtor had, in order to secure a sale thereof and the collection of money sufficient to satisfy the judgment with all costs. This, however, is a somewhat complicated and expensive proceeding and is not usually resorted to.

DOES IT PAY.

The usual expense of a suit in a Justice's Court is from two to five dollars, to which must be added all expense incurred upon execution or through the other means taken to enforce collection of a debt, besides lawyer's fees, if one is employed; and in case of an appeal to a higher Court, it will be proportionately greater.

These costs are made up of many small items, as the Justice is entitled by law to a small fee for every paper that he issues or files, for every continuance granted or witness sworn, etc., so that altogether it will amount to about the figures stated; but these costs must be borne by the party who is beaten, and if a judgment is obtained and collected the plaintiff receives them back.

CONCLUSION.

It is plain that in matters of importance where suit is to be brought in the upper Court, or difficult points of law are involved, it is necessary, in the first place, to employ a lawyer to attend to the matter. If this is done, always take care to secure a competent, honest man, for nothing in this world is dearer than a cheap lawyer.

THE SINGLE TAX SYSTEM.

We hear much nowadays of the "single tax" agitation. There is a "single tax" league, which has a considerable membership throughout the country; public meetings in the interest of the "single tax" are held, and several newspapers and many books advocating the "single tax" are published or have been published. What is this "single tax"?

It is, in brief, a proposition to abolish all taxation except that upon land, or the value of land. It does not propose that even buildings shall be taxed, but that all the taxation of the nation, the state and the municipality shall be laid upon the land alone, exactly in the same measure whether it be built upon or vacant, but in proportion to the value which it possesses from nearness to the centers of population or business.

The "single tax" theory is based upon the doctrine that the land rightfully belongs to all the people. That the exclusive possession of land by individuals is not right, and that the separate ownership of land might be merged into a sort of joint-stock ownership of the public without injustice, was first suggested, in England, by the social philosopher, Herbert Spencer. The doctrine received a much fuller statement in this country at the hands of Mr. Henry George, in a book called "Progress and Poverty," first published in 1879. Mr. George is accounted the founder of the single tax system, and is the head and front of the agitation.

Mr. George and his followers maintain that, under the present system of private ownership of land, the burden of poverty resting upon the mass of mankind grows heavier as the world makes material progress; that in spite of the increase in the world's productive power, wages always tend to a minimum which will give but a bare living. They hold that private ownership of land, with the privilege of holding it for speculative purposes and of forcing up rents as population and industry advance, has the effect to put a monopoly of natural opportunities into the hands of the land-owners. The natural opportunities being thus monopolized, laborers are compelled to compete with each other to such an extent as to force wages down to the lowest possible point.

As they hold that wages of all classes of laborers depend upon the productive cultivation of the soil, Mr. George and his followers maintain that the true remedy for poverty is to make the land common property.

They do not, however, propose to disturb the occupants of land, so long as the occupants make full use of their land. They propose, on the contrary, to allow the possessors of the soil to continue to buy and sell and bequeath it. But they do propose to take all the rent by taxation. To do this would make the occupant of the land a tenant paying rent to the state.

This proposition, which was first known under the name of "land nationalization," has since, by the common consent of its advocates, become known as the "single tax" movement, the efforts of its friends having been directed more specifically to the abolition of all other forms of taxation. They hold that the removal of taxation from industries in general would stimulate manufactures and business, at the same time that it destroyed the speculation in land, to such an extent that the general prosperity would be immensely increased and wages greatly raised.

They hold that the revenue from the single tax would be so large as to enable the government to maintain schools and colleges, build and operate railroads and telegraphs, and do many things which it does not now engage in.

Their plan, also, of course, being a "single tax," involves the abolition of tariffs upon imports. The "single tax" men are absolute free-traders.

THE AUSTRALIAN BALLOT SYSTEM

ITS OBJECT TO PREVENT BRIBERY AND INTIMIDATION, TO PLACE ALL CANDIDATES ON AN EQUALITY BEFORE THE LAW, AND TO SMASH POLITICAL MACHINES.

The Australian system of voting, so called because first used in Australia, has been for several years in successful operation there, and, with non-essential variations, in England, Scotland, Ireland and Canada. In 1888 it was adopted in Massachusetts. Its principal objects are to prevent bribery and intimidation, to place all candidates upon an equality before the law, and to determine the dangerous powers of political machines.

The system will be readily understood by reference to the accompanying drawing:

The voter, upon entering the polling place, turns to his right at the point marked "Entrance," where he receives from two election officers selected from opposing political parties a single ballot or a single set of ballots, according to the local custom of voting. On the back is indorsed a stamp or signature, sufficient and only sufficient to identify the ballot as official; and on the face are plainly printed the names of the candidates for each office, with a designation of their respective political parties, after this manner:

	For Mayor.	Vote For One.
Democratic,	John Doe.	
Republican,	Richard Roe.	
Prohibition,	David Smith.	
Independent,	Samuel Jones.	

	For Coroners.	Vote For Two.
Democratic,	Alanson Jacobs.	
	Harvey Sylvester.	
Republican,	Martin Rawson.	
	Wyman Simpson.	
Prohibition,	Valentine Remsen.	
	Victor Sampson.	
Independent,	Erastus Myers.	
	Samuel Bixby.	

PREPARING A BALLOT.

Having received his ballot, the voter enters one of the booths back of the railing, where, secluded from observation, he prepares the ballot by placing in the blank column a cross opposite the name of each candidate for whom he desires to vote; or, if he prefers, by writing the names of candidates of his own nomination in place of those already there. If there are several candidates for the same kind of office, as Coroners in the sample ballot above, or Presidential Electors, and he wishes to vote the "straight" ticket of his party, he places the cross under the name of the party, or draws it through the space in the blank column alloted to the party's candidates, which signifies that he votes for each candidate named in that space. Thus, in the sample ballot, a cross under the word "Democratic," or through the first two spaces of the blank column to the right, is one vote each for Alanson Jacobs and Harvey Sylvester.

After preparing his ballot by indicating every candidate for whom he votes, the voter folds it in such manner as to conceal the face and expose the indorsement, and, withdrawing from the booth, gives the ballot to the inspectors, who identify it by the indorsement as official. It is then deposited in the box and the voter passes out at the gate marked "Exit."

From the time he receives his ballot until he casts it, the voter is permitted to have no communication with any one but the election officers, and with them only for official purposes; and only election officers and persons actually engaged in voting are ever admitted within the railing.

THE TASMANIAN DODGE.

Upon proof of inability from physical infirmity or illiteracy, a voter may call into the booth officers appointed and sworn for the purpose to aid him in preparing his ballot; and when a ballot is accidentally destroyed or defaced it may be exchanged for a clean one. The importance of the latter requirement may not at once be apparent; but to secure secrecy every ballot delivered to a voter must be either cast or returned. This explains the necessity for indorsing ballots. But for the indorsement a blank paper outwardly resembling a ballot might be cast by a voter, who would then be able surreptitiously to carry away an official ballot. This could be prepared for a bribed voter, the proof of its use being his production of a second official ballot. That could be similarly prepared and used, and so on. Such a fraud, known as the "Tasmanian dodge," was successfully perpetrated in Australia in the early days of the system; but its repetition was prevented by requiring ballots to be officially indorsed.

As it is essential that ballots be printed at public expense and distributed by public officers, the system must include some mode of certifying nominations to the proper authorities a reasonable time before election. That proposed by the Yates-Saxton bill of New York was perhaps as convenient as could be desired. Under it State nominations were to be certified fifteen days and local nominations ten days before election; nominations of a political party which at the next preceding election polled 3 per cent. of the whole vote were to be certified by party officers; and independent nominations, if for a State office, were to be certified by a thousand voters, and if for a local office by a hundred.

SECRECY OF THE BALLOT.

Penal laws are ineffectual to prevent bribery and intimidation. The primary remedy is a secret ballot. And this is best secured when the only proof of an elector's vote is his own uncorroborated assertion. Under the Australian system no other proof can be made. That fact gives to the most timid among dependent voters a sense of security which makes him free. And to bribery it is fatal. Bribers are not likely to invest money on the faith of a bribed man's naked assertion; if there be such a virtue as "honesty among thieves," it is not acceptable security to the thieves themselves.

But secrecy, though the primary remedy for bribery and intimidation, is not all that is required to purify elections, nor the only remedy the Australian system offers.

HOW THE TICKETS ARE PRINTED.

The printing and distribution of ballots is a most important part of election machinery, and, left to private enterprise, inevitably tends, as does the farming out of any other public function, to breed corruption and build up monopoly. It makes a necessity for irresponsible organizations which come to wield autocratic power over the political party they claim to serve, and in turn, through discipline almost military in severity, are dominated by an inner circle of "leaders." As ballots can neither be printed nor distributed without money, and may not be faithfully handled unless trusty workers are rewarded with more than an election-day stipend, the organization undertaking the work has a plausible, if not reasonable, claim for money from its beneficiaries and official patronage for its retainers.

It is the necessity of raising these funds and employing the "workers" that justifies assessments, gives color of voluntary contributions to what in truth are sales of nominations, excuses the submission of official patronage to the distribution of the machine, provides ample cover for collecting a corruption fund, and, through "workers" at the polls, a convenient channel for disbursing the fund in bribes. And as corruption funds increase, masked in increasing demands for legitimate expenses, assessments grow, the price of nominations rises, independence is shackled, and the organization becomes more indifferent to party principle as its monopoly of political power strengthens. Born of the necessity of volunteer machinery for preparing and distributing ballots, it develops into a powerful instrument, which, in the hands of political jobbers, enables them to buy and sell office "as the Prætorians sold the Roman purple."

EXIT THE MACHINE.

The political monster would be destroyed by the Australian system. If the State assumed its function of providing ballots there would be no necessity for "workers" at the polls, and the excuse for raising, as well as the best mode of using, corruption funds would disappear. Assessments could not then be levied upon candidates, for when "workers" at the polls are not required machines can neither serve nor injure. Nor would nominations be sold; for when candidates stand upon an equality in respect to election machinery, and there is no opportunity for bribing voters, organizations merely as organizations, have nothing worth buying, while organizations as representatives of principles can not be approached through commercial channels. Trafficking in office would be replaced by political discussion, the power of the machine by the voice of the party.



SOME OBJECTIONS CONSIDERED.

To this system it is objected that by requiring nominations to be made in advance of elections it denies a constitutional right of voters to select candidates from the whole body of voters. From such eminent authorities as Judges Gooley, McCrary and Folger, and the highest courts of Pennsylvania, Massachusetts and New York, it may be safely inferred that a restriction of the franchise to candidates nominated a short time before election is a reasonable regulation and not an unconstituional interference; but the inference is not necessary, since the system allows each voter to reject all candidates and write new names upon his ballot.

It is objected also that by requiring the blind and illiterate to expose their vote to election officers, secrecy of the ballot is, as to them, violated. Under our present system voting is not secret. It was for that reason rejected by the British Parliament and the Australian system adopted. The object now is to secure secrecy, but in aiming at that we are confronted with a class of voters to whom exposure of their ballots to somebody is necessary, and an exception must be made in their favor to prevent their disfranchisement. What form, which shall be consistent with the highest degree of secrecy, can that exception take? If allowed to carry their ballots away these voters fall into the hands of irresponsible and, perhaps, dishonest persons, and may be made, innocently or otherwise, instruments for perpetrating some form of the "Tasmanian dodge." If, for their benefit, official ballots are generally circulated, all efforts for secrecy are frustrated. And, if they are permitted to take a "friend" into the booth, a door is opened for the bribery of every venal voter, who is or can successfully pretend to be unable to read English. Exposure of ballots must be prevented by every means that ingenuity can suggest, but, in exceptional cases, in which it can not be avoided, it may most safely be confided to election officers, who represent opposing parties, are under oath of secrecy and fidelity, can be readily detected in malfeasance, and, when detected, are liable to severe penalties. As to blind voters, this seems to be the only course, but, respecting the illiterate, any exception to the general rule may be avoided by identifying the names on the ballots with numbers or by printing them with inks of different colors.

ITS ADOPTION IN THE UNITED STATES.

The Australian Ballot System was practically introduced into the United States in 1888 by its adoption by law in the State of Massachusetts and the city of Louisville, Ky. The principle of the system was embodied in the Saxton bill, which passed the New York Legislature in the sessions of 1888 and 1889, and was vetoed both times on the ground of unconstitutionality. A modification of the Saxton bill was introduced in the Legislature in the session of 1889, but was not passed; another bill met with success in 1890, and was amended in some particulars, without changing its general form, in 1891. In 1889, following the example of Massachusetts, the Legislatures of Indiana, Montana, Rhode Island, Wisconsin, Tennessee, Minnesota, Missouri, Michigan and Connecticut passed laws adopting the system. Most of the laws passed adhered closely to the Massachusetts form. The Connecticut form varied from it more than the others. In 1890 laws which are more or less modifications of the Australian system were adopted by Washington, New York, Maryland, New Jersey, Vermont, Wyoming and Oklahoma. In 1891 Arkansas, California, Colorado, Delaware, Idaho, Illinois, Maine, Nebraska, Nevada, New Hampshire, North Dakota, Ohio, Oregon, South Dakota, West Virginia and Arizona adopted laws based on the Australian system. The Australian rule of placing candidates' names on the ballot in alphabetical order under the titles of offices prevails in California, Massachusetts, Kentucky, Minnesota, Montana, Nebraska, New Hampshire, Oregon, Rhode Island, Tennessee, Vermont, Washington and Wyoming.

SPECIAL LAWS OF THE STATES AND TERRITORIES.

Assignments, Attachments, Chattel Mortgages, Divorce, Exemptions, Rights of Married Women, Deeds and their Acknowledgment, Wills and Mechanics' Liens. Illustrations: The Coats of Arms of the States.

ALABAMA.

ASSIGNMENTS are regulated by statute, which forbids preferences or any provision for the release of the debtor. There is no insolvent law.



ATTACHMENTS may issue upon affidavit of the creditor or his agent that the defendant is non-resident, has absconded, disposed of, transferred, or attempted to remove his property out of the State, and garnishment process may be issued in aid of execution. Judgments do not constitute liens. Stay of execution is allowed in justices' courts for thirty to sixty days, but the only way to delay the collection of a judgment of the Circuit Court is by appeal, which requires a bond for double the amount, legal interest, damages and cost of the appeal. Under the Constitution there can be no imprisonment for debt. Jurisdiction of justices of the peace is limited to $100.

CHATTEL MORTGAGES must be recorded in the county where the grantor resides, also where the property is; and if the property is removed to a different county from the one in which the grantor resides, must there be recorded within six months from the removal.

DEEDS may be acknowledged within the State before judges of a court of record or their clerks, chancellors and registers in chancery, justices of the peace or notaries public. Out of the State and in the United States, by the judges and clerks of any court of record in any State, notaries public or commissioners appointed by the Governor. Out of the United States, by the judge of any court of record, mayor or chief officer of any city, town, borough or county, notary public or any diplomatic, consular or commercial agent of the United States. The wife may relinquish her right of dower by joining her husband in a conveyance and acknowledging the relinquishment. The husband must join in conveyance of the wife's separate property. Neither seal nor scroll is necessary. One witness is required.

DIVORCE may be obtained for the following causes: Impotency, adultery, desertion for two years, habitual drunkenness, imprisonment for two years and continued cruelty. An allowance must be made by the court, out of the husband's estate, for the support of the wife pending suit; also an allowance when the decree is made. The custody of minor children may be given to either parent, in the discretion of the court.

EXEMPTIONS are as follows: A homestead not exceeding 160 acres of land, or a lot in a city, town or village, with a dwelling-house thereon, not exceeding the value of $2,000. Personal property to the value of $1,000. May be selected by the debtor. Waiver of exemption is not valid unless joined in by the wife.

MARRIED WOMEN may hold all property, real and personal, acquired before and after marriage, as a separate estate not liable for the husband's debts, and it may be devised or bequeathed as by a single woman. This separate estate is liable for debts contracted by the woman before marriage, and for contracts after marriage for articles of comfort and support of family. The wife is entitled to dower of one-half of husband's real estate, if he leave no lineal descendants, one-third if there are any, provided she has no separate estate; if her separate estate is less than the dower interest would be, she is entitled to as much as would make it equal. Women attain their legal majority at twenty-one, but may marry without consent of their parents at eighteen.

MECHANICS' LIENS. The process of collecting on liens is by attachment. Proceedings must be commenced within six months after the work is finished. Mechanics, contractors and laborers have a lien for work and labor done, or materials furnished; laborers and other employes of railroad companies have a lien upon all the property of the company for work done, and agricultural laborers have a lien on the crops for their wages.

WILLS are recorded in the probate judge's office; two witnesses are required. All persons over twenty-one years of age can dispose of real estate; all over eighteen, of personal property. Married women may bequeath their separate estates. No nuncupative will can dispose of more than five hundred dollars' worth of property.

ARIZONA.

ASSIGNMENTS. No insolvent or assignment law in this Territory.

ATTACHMENTS issue in actions upon contract for direct payment of money where plaintiff has no security, or when defendant is a non-resident. The plaintiff must give bond. Jurisdiction of justices of the peace is limited to $300.

CHATTEL MORTGAGES. The statute specifies certain classes of property on which mortgage can be placed. If mortgagee has possession of property, recording is not necessary.

DEEDS may be acknowledged at any place in the Territory, before a justice or clerk of the Supreme Court, or of any court of record, a

justice of the peace, the mayor of a city or a registrar of deeds. The officer taking the acknowledgment must affix thereto his official seal. All rights of dower and curtesy are abolished. The wife must be examined apart from her husband to ascertain if she acts by her own free will.

MARRIED WOMEN may carry on business and sue and be sued in their own names. All property acquired before marriage, and all afterwards acquired, by gift, grant, devise or inheritance, is separate estate, liable for her own, but not for her husband's debts. She may control it and dispose of it in all respects like a single woman.

MECHANICS' LIENS. Artisans, builders, mechanics, lumber merchants, and all others performing labor or furnishing material for the construction or repair of any building, have a lien upon the same for the labor done or material furnished. Besides liens of the usual description, any mechanic or artisan who alters or repairs any article of personal property has a lien thereon to secure his just charges, and may retain possession until he is paid.

WILLS. The statute provides in great detail the manner in which wills shall be executed. Testators, male or female, must be twenty-one years of age. Two witnesses are required. Nuncupative wills cannot dispose of more than three hundred dollars' worth of property. Married women may devise their separate estate.

ARKANSAS.

ASSIGNMENTS for the benefit of creditors may be made with or without preference. Bond must be given by assignee in double the amount of property assigned, and all property received under assignment must be sold at auction within 120 days.



ATTACHMENTS may issue in a civil action, at or after commencement thereof, against property, where defendant is a non-resident of the State, or a foreign corporation, or has been absent four months from the State, or has departed from it with intent to defraud his creditors, or has left the county of his residence to avoid service of a summons, or conceals himself so that a summons cannot be served upon him, or has transferred, sold, conveyed or removed his property out of the State, or is about to sell, remove or dispose of the same with fraudulent intent. Under a written attachment debts due the defendant may be garnisheed. Plaintiff must give bond with sureties to pay all damages defendant may sustain if the action is wrongly maintained. Jurisdiction of justices of the peace is limited to $100.

CHATTEL MORTGAGES must be proved as other mortgages. They may be filed and not recorded, at the option of the mortgagee, and are liens from time of filing. Before sale under mortgage, the property must be appraised, and must bring two-thirds of the appraised value, or it is reserved from sale sixty days. At second offering it is sold for what it will bring.

DEEDS must be acknowledged before a judge or clerk of the Supreme or Circuit Court, judge of County Court, justice of the peace or notary public. Two witnesses are required. No scroll or seal need be used. When husband and wife convey the lands of the husband, the certificate must show that the wife acknowledged the relinquishment.

DIVORCE may be granted for impotency, bigamy, adultery, conviction of felony, habitual drunkenness, wilful desertion for one year, cruel and barbarous treatment. Plaintiff must reside in the State one year before bringing suit. Court may allow alimony to the wife.

EXEMPTIONS. The homestead of a married person or head of a family in the country, not exceeding 160 acres, with improvements, not to exceed $2,500. Personal property of married person, $500 besides wearing apparel, and of a person unmarried, $200 and wearing apparel.

MARRIED WOMEN have absolute and unqualified right in property of every kind and are not liable for debts or contracts of the husband. But a schedule under oath, and verified by some other reputable person, must be made by the husband and wife, and filed in the recorder's office of the county where the property is, and of the county where they reside. The wife may control her property, may carry on business on her sole and separate account, may sue and be sued, may make a will and may insure her husband's life for her benefit. The widow is entitled to one-third part of the estate, unless legally relinquished by her.

MECHANICS' LIENS. Laborers have a lien on the product of their labor; builders and mechanics, on all buildings for which they have furnished work, labor or materials. The original contractor must file his lien with the circuit clerk within three months after all the work shall have been done or the material furnished.

WILLS are recorded in the Probate Court of the county in which most of the bequeathed land is situated; but if only personal property, then in the county where the testator died. All over twenty-one years may devise real estate; all over eighteen, personal property. Three witnesses are required. Married women may devise their separate property.

CALIFORNIA.

ASSIGNMENTS. An insolvent law by which a debtor surrendering his property may receive a discharge from his debts. No preferences permitted. No discharge in case of fraud, nor from debts due as a depositary of funds received as banker, broker or commission merchant. Assignments are not allowed unless under this law.



ATTACHMENT issues in an action upon a contract for the direct payment of money, where the contract is made or is payable in this State, and is not secured by any mortgage or lien upon real or personal property, or any pledge of personal property; or, if originally so secured, such security has, without any act of the plaintiff, become valueless. Garnishee process can be had in all cases where property is liable to attachment. Jurisdiction of justices of the peace is limited to $300.

CHATTEL MORTGAGES, to be valid against third parties, must show the residence and trade of the mortgageor and mortgagee, the rate of interest charged and when and where it is payable, and mortgageor and mortgagee must each make affidavit that the mortgage is *bona fide* and made without design to defraud or delay creditors.

DEEDS may be acknowledged within the State before any judge or clerk of a court of record, recorder, justice of the peace or notary public. Without the State, before any judicial officer, commissioner or notary. Husband or wife can convey separate property without the other joining, but both must join when the property is in common. A conveyance by a married woman has no validity until acknowledged. Deeds are known as grants, and need not be under seal. Two witnesses are required.

DIVORCES are granted for adultery, extreme cruelty, conviction of felony, wilful desertion, neglect or habitual intemperance continued for one year. No divorce can be granted by default.

EXEMPTIONS. The homestead on which debtor resides, to the value of $5,000, if he is the head of a family; if not, to the value of $1,000. Personal property exempt includes chairs, tables, desks and books, $200; necessary household and kitchen furniture, sewing-machines, stoves, beds, etc.; provisions for family for three months, three cows, four hogs, two horses, oxen or mules; seed, grain and vegetables for sowing, not above $200 in value; tools and implements of

a mechanic or artisan; instruments of a physician, surgeon or dentist; professional library of attorney, minister, editor or teacher; a miner's cabin, not exceeding $500 of value, with all tools and gear necessary for his business, not exceeding $500. Two horses or mules with harness, and the miner's claim worked by him, and not exceeding $1,000 in value, are also exempt.

MARRIED WOMEN. All property acquired in any manner before marriage, or afterwards by gift, grant, inheritance or devise, is wife's separate property, controlled by her and not liable for debts of the husband. The husband's property similarly acquired is not liable for debts of the wife. All property acquired after marriage by husband or wife, except as above, shall be common property, but under the husband's control. Dower and curtesy are abolished, but the survivor takes half the common property after payment of debts and expenses of administration. A married woman may dispose of her separate estate by will without the consent of her husband and may insure her husband's life for her benefit.

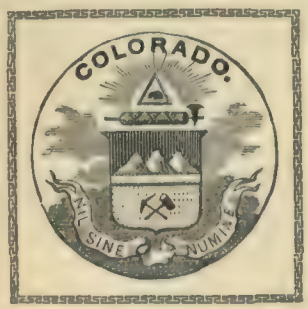
MECHANICS' LIENS. Mechanics, laborers and material-men have a lien on buildings for work done or materials furnished. An original contractor may file his claim within sixty days; others, within thirty days. Suit must be brought within ninety days from the date of filing the claim. A lien has precedence over any subsequent or previous unrecorded encumbrance.

WILLS. Real or personal property may be disposed of by will by all persons over eighteen years of age. Two witnesses are required. Married women may dispose of their separate property without consent of their husbands. Nuncupative wills not exceeding $1,000 are valid, but must be reduced to writing within thirty days.

COLORADO.

ASSIGNMENTS. There is no insolvent or assignment law.

ATTACHMENTS. Where defendant is a non-resident or a foreign corporation, evades service or attempts to remove his goods with intent to defraud, plaintiff may obtain a writ of attachment by making affidavit and giving sufficient bond. Garnishee process will issue in aid of attachment where sufficient property to satisfy the same is not found. No civil action can be begun by arrest, except in cases where malice, fraud or wilful deceit is shown, when execution may issue against defendant's body, and he may be imprisoned not exceeding one year, or until the judgment is satisfied. Jurisdiction of justices of the peace is limited to $300.



CHATTEL MORTGAGES, to be valid as to third parties, must be acknowledged before a justice of the peace or notary public in the district where grantor lives, unless possession of the chattels actually passes. If the mortgageor retain possession the mortgage must expressly provide for such possession; otherwise it is void. Mortgage may be given for a term of two years, and after default mortgagee must take possession without delay, or his lien will be void as to third parties.

DEEDS may be acknowledged before any justice, clerk or deputy clerk of the Supreme or District courts, county judge, county clerk or recorder, justice of the peace or notary public. Outside of the State, before the Secretary of any State under the seal of the State, any authorized officer in any State or Territory or any commissioner of deeds. Witnesses are not necessary, but are desirable. A seal is required, but a scroll will answer.

DIVORCES may be granted for adultery, impotency, bigamy, wilful desertion for one year, habitual drunkenness for two years, extreme cruelty or conviction for felony or infamous crime. One year's residence in the State is required before bringing suit, except where the offence was committed in the State or while one or both of the parties resided there.

EXEMPTIONS. A homestead consisting of house and lot in town or city, or a farm of any number of acres, in value not exceeding $2,000, is exempt if occupied by a householder and head of a family, provided it has been entered on record as a homestead and so specified in the title. Personal property, including wearing apparel of the debtor and his family, pictures, school books, library, etc., and household furniture, not exceeding $100; provisions for six months, tools, implements or stock in trade, $200; one cow and calf, ten sheep and necessary food for six months; working animals up to $200; the library and implements of a professional man up to $300. The head of a family may select personal property to the value of $1,000; others, to the value of $300.

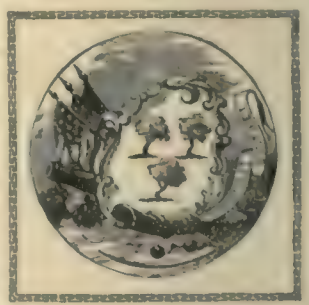
MARRIED WOMEN are treated, in all respects, as to their property rights, as if they were single. A wife may carry on trade or business, sue or be sued, contract debts, transfer real estate, and in all ways bind her separate property, without the husband's joining. She may make a will, but cannot bequeath more than half her property away from her husband without his consent in writing. The husband cannot by will deprive his wife of over one-half of his property. Dower is abolished. The husband is liable for debts of the wife contracted before marriage to the extent of the property he may receive through her, but no further.

MECHANICS' LIENS. Any person furnishing materials or doing labor to the amount of more than $25 on any building may hold a lien thereon. The principal contractor must file his lien within forty days, and sub-contractor within twenty days. Suit must be brought within six months.

WILLS. To devise real property, the testator, if male, must be twenty-one; if female, eighteen years of age. Either may bequeath personal property at seventeen years of age. Two witnesses are required. Neither husband nor wife can deprive the other of more than one-half the property by will, except the wife receive written consent of the husband allowing her to do so.

CONNECTICUT.

ASSIGNMENTS. In cases of insolvency, the Probate Court may appoint a trustee, on motion of a judgment-creditor for over $100, when no property can be found to attach. On the hearing which follows, the petition may be granted, and the trustee takes possession of all property not exempt. An allowance is made to the debtor for the support of his family, and if the estate will pay seventy per cent he receives a full discharge. The debtor's property is exempt for two years from legal process upon debts which might have been proved. Voluntary assignments can be made by a debtor to a trustee chosen by himself, but the court of probate may substitute another.



ATTACHMENTS. In cases of fraud or judgment for damages for misconduct or neglect, defendant may be arrested, and may give bail to the person making the arrest. Goods concealed in the hands of agents, or money due the judgment-debtor, may be reached by foreign attachment; and no assignment of future earnings, unless recorded within forty-eight hours, will prevent their attachment when due. Where goods and lands cannot be found, the person of a defendant may be attached. Jurisdiction of justices of the peace limited to $100.

CHATTEL MORTGAGES must be recorded like deeds of real estate. A chattel mortgage of property not perishable in its nature is good although the grantor retains possession. Property exempt from execution is also a proper subject for a chattel mortgage.

DEEDS must be in writing and under seal, a scroll being sufficient. Two witnesses are required. Acknowledgment in the State is made before a judge of a court of record, justice of the peace, notary public, town clerk, commissioner of the Superior Court or commissioner of the school fund. The wife need not be privately examined apart from her husband. She must join with her husband in conveyance of her separate real estate, but the husband conveys his property without her signature. Dower attaches only to the separate real estate of the husband at his death.

DIVORCE. Absolute divorce may be granted by the Superior Court for adultery, fraud, duress or force in obtaining the marriage, wilful desertion for three years, seven years' absence without being heard of, habitual intemperance, intolerable cruelty, sentence to imprisonment for life, the commission of any crime punishable by imprisonment in the State penitentiary and any such misconduct as permanently destroys the happiness of the petitioner and defeats the purposes of the marriage relation. Three years' residence in the State is necessary before filing a petition. Either party may marry again after divorce, and the court may change the wife's name and make order for alimony and custody of children.

EXEMPTIONS. There is no homestead exemption. Personal property is exempt as follows: Libraries not above $500 in value; a cow worth $150; ten sheep, not over $50 in value; two hogs, and 200 pounds of pork. Implements of trade, the horse, harness and buggy of a practicing physician, and the boat, not exceeding $200 in value, of a person engaged in fishing, and used for that purpose, are also exempt.

MARRIED WOMEN. Previous to the year 1877, the husband acquired a right to the use of all the real estate of the wife during her life, and if he had a child by her and survived her, then during his own life as tenant by curtesy. By the act of May 20th, 1877, the rights of married women are materially enlarged. Any woman married after that date retains her real estate as if unmarried. She may make contracts, convey real estate and sue or be sued in regard to any property owned by her at the time of marriage, or afterwards acquired. The estate is liable for her debts, and, jointly with her husband, for debts contracted for joint benefit of both or household expenses. The separate earnings of a wife are her sole property. Dower exists only in real estate of which the husband is possessed at the time of his decease.

MECHANICS' LIENS. Any person furnishing materials or rendering services exceeding $25, in the construction or repair of any building or railroad, may have a lien on such building and land upon which it stands, or upon the railroad; provided that no such lien shall attach to any estate not owned by the party against whom such claim exists. A certified claim must be lodged within sixty days, and the premises may be foreclosed as in the case of a mortgage. A person wishing to obtain such lien shall file with the town clerk a certificate in writing describing the premises, the amount of the claim and the date of the commencement. Vessels are subject to a lien for work or materials furnished exceeding $20 in amount, claim to be filed within ten days of the completion of the work. Liens for mariners' wages have precedence.

WILLS must be in writing, signed by the testator and attested by three witnesses in his presence and in presence of each other. All persons over eighteen years of age can bequeath both real and personal property. Wills are recorded in the Probate Court, and ten years are allowed to probate a will after the death of the testator.

NORTH AND SOUTH DAKOTA.

ASSIGNMENTS without preferences are allowed, but are not valid against any creditor not assenting thereto, if they tend to coerce the creditor to release his claim, or provide for payment of fraudulent claim, or reserve any benefit to assignor or confer any power on assignee which may delay the conversion of the assigned property or exempt the assignee from liability for neglect of duty. No insolvent law is in force.

ATTACHMENTS may issue on plaintiff's giving bond when defendant is a non-resident, absconds, conceals or conveys property to defraud creditors. Jurisdiction of justices of the peace is limited to $200 in North Dakota, and to $100 in South Dakota.

CHATTEL MORTGAGES are void unless the original or an authenticated copy be deposited with the register of deeds in the county in which the mortgaged property, or any part of it, at such time is situated. Mortgage must be signed by mortgageor in the presence of two persons, as witnesses thereto, and no other proof or acknowledgment is necessary. A chattel mortgage can be created, renewed or extended only by a writing subscribed by the mortgageor, and must be renewed every three years.

DEEDS must be in writing, duly signed by the maker, and recorded with the register of deeds of the county in which the property is situated. Acknowledgment may be made within the State before a justice or clerk of the Supreme Court or of any court of record, a justice of the peace, the mayor of a city, or a register of deeds. The officer taking the acknowledgment affixes thereto his official seal. Outside of the State, before a justice, judge or clerk of any court of record of the United States or of any State or Territory, a notary public, or any other officer authorized by law to take such proof or acknowledgment. Outside of the United States, by the representative thereof or of the country where proof is taken No certificate of the official character of the officer is needed when acknowledgment is taken out of the State. Conveyance by a married woman has no validity until acknowledged. Dower and curtesy are unknown, and the wife need not join in conveying property of the husband, nor the husband in conveyance of land belonging to the wife, except in case of homesteads, when both must concur in and sign the same joint instrument, provided the owner is married and both husband and wife are residents of the State.

EXEMPTIONS. A homestead consisting of not more than 160 acres, with buildings and appurtenances thereon, and personal property defined by statute, aggregating in value not to exceed $1,500, is exempted to a householder. A firm can claim but one exemption, not a several exemption for each partner. Tools and implements of a mechanic to the value of $200, books and instruments of a professional man to the value of $600, are also exempt from seizure.

MARRIED WOMEN may transact business in all respects the same as if unmarried. Neither husband nor wife has any interest in the separate estate of the other. The earnings and accumulations of the wife are her separate property and not liable for the husband's debts nor even for household debts contracted by her as her husband's agent. Her separate property is, however, liable for her own debts, contracted before or after marriage, if such debts are contracted on her own responsibility.

MECHANICS' LIENS. Mechanics, laborers or material-men who shall perform labor upon, or furnish materials, machinery or fixtures for, any building or other improvement, shall have for such labor performed, or materials, machinery or fixtures furnished, a lien upon such building or improvement, also upon the land upon which it is situate. The receiving of collateral security on the same contract will invalidate the lien.

WILLS. Both real and personal property may be disposed of by will by all persons above eighteen years of age. Two witnesses are required, and wills the body of which is in the testator's handwriting, and signed and dated by him, need not be attested. Married women may dispose of their separate property without consent of their husbands. A will made by an unmarried woman is revoked by her marriage and not revived by the death of her husband.

DELAWARE.

ASSIGNMENTS must be made for the benefit of all creditors alike. Voluntary assignments are governed by the common law, ex-

cept that a special partnership may not give preferences. The assignee must file within thirty days a schedule of property assigned, and two appraisers are then appointed by the chancellor. A domestic insolvent law is in existence, providing for a full surrender and equal distribution of all property, but it is seldom used, and no provision is made for the discharge of the debtor upon his making an assignment.



ATTACHMENT may issue in domestic cases when the debtor cannot be found, when defendant has fraudulently left the State, etc., and against foreign corporations or non-residents of the State. In both cases an affidavit setting forth the above facts must be given by the creditor or some responsible person in his stead. A *capias* may not be issued against the body of any debtor until an execution against his goods has been returned unsatisfied. Jurisdiction of justices of the peace is limited to $100.

CHATTEL MORTGAGES are a valid lien for three years when recorded within ten days after acknowledgment. The lien of a purchase-money mortgage recorded within sixty days after it is made has preference over any judgment against the mortgageor or other unknown lien of a prior date. Foreclosure is made by order of the court; no equity of redemption.

DEEDS must be recorded in the county in which the land lies within one year after the sealing or delivery thereof. A scroll answers for a seal, and one witness is sufficient. Acknowledgments may be made before any judge or clerk of record, justice of the peace or notary public. Outside of the State, the same as in Alabama. The wife must relinquish her right of dower, must be separately examined, and the examination certified.

DIVORCE may be granted by the Superior Court for adultery, impotency at the time of marriage, habitual drunkenness, extreme cruelty, desertion for three years or conviction of crime sufficient to constitute a felony. In the case of marriage by fraud or for want of age, the wife being less than sixteen, the husband being less than eighteen, at the time of marriage, absolute divorce or divorce from bed and board may be granted, at the discretion of the court. The wife receives all her real estate and such other allowance and alimony as the court may decree where the husband is proved to be in fault. Wilful neglect of the husband to provide the necessities of life also forms sufficient grounds for divorce.

EXEMPTIONS. Family pictures, family Bible and library; lot in burial-ground and pew in church; family wearing apparel and tools and implements necessary to carry on business, the whole not exceeding $75 in value, are exempt from attachment. In addition to the above the head of a family may claim $200 of personal property. In Newcastle county wages of laborers are also exempt. No homestead law.

MARRIED WOMEN, married since 1873, retain all real and personal property held at marriage, or since acquired from any person other than the husband, as their separate estate, and not subject to the disposal of the husband or liable for his debts. They may receive wages for personal labor, sue or be sued in respect to their own property as if unmarried; and the rents, issues and profits of their separate estate are not controlled by the husband. The widow is entitled to one-third dower of all the lands and tenements whereof her husband was seized at any time during her marriage, unless she shall have relinquished such right for and during the term of her natural life. She may be an administratrix, and the husband's life may be insured for her benefit if premium does not exceed $150.

MECHANICS' LIENS. Any person who has furnished material or performed labor to an amount exceeding $25 may obtain a lien upon the building or structure for which such labor was given or such material furnished. Claims must be filed within ninety days, and contractors must file a statement within thirty days after the expiration of ninety days from completion of the building.

WILLS must be in writing, signed by the testator, and two witnesses are required. Any person, male or female, twenty-one years of age, and of sound mind, may dispose of real or personal property. Married women, in order to dispose of their property by will, must obtain the written consent of their husband, signed, sealed and attested by two witnesses.

DISTRICT OF COLUMBIA.

ASSIGNMENTS. No assignment or insolvent law is in force, except that assignments of the property of a special partnership with preferences are not valid.

ATTACHMENTS may issue by plaintiff giving bond when the defendant is a non-resident, or removes, or is about to remove his property, etc.

CHATTEL MORTGAGES must be recorded within twenty days after execution. In case of bills of sale, deeds of trust, or other property which is exempt from execution, the mortgage must be signed by wife of grantor.

DEEDS may be acknowledged before any justice or court of record and of law, any chancellor of State, any judge of Supreme, Circuit, District or Territorial Court, any justice of the peace, notary public or commissioner of the Circuit Court of the district appointed for that purpose. The officer must annex to the deed a certificate under his hand and seal. Acknowledgments outside of the District must be accompanied by certificate of the register, clerk or other public officer, under his official seal, that the officer was what he purported to be at the time of the acknowledgment. Deeds made outside of the United States may be executed and acknowledged before any judge or chancellor of any court, master in chancery or notary public, or any secretary of legation or consular officer of the United States.

EXEMPTIONS. Family wearing apparel; household furniture to the amount of $300; provisions and fuel for three months; tools or instruments necessary to carry on any trade, to the value of $200; library and implements of a professional man or artist not above $300; family pictures and library to the value of $400, and a farmer's team and other utensils to the value of $100, are exempt from attachment or sale on execution, except for servants' or laborers' wages. There is no homestead exemption.

MARRIED WOMEN may bequeath, devise or convey property or interest therein in the same manner as if unmarried. Real or personal property belonging to the wife at marriage or afterwards acquired is separate estate. She may sue and be sued in all matters pertaining to her property, and the husband is not liable for any contracts made by her in respect to her personal estate.

MECHANICS' LIENS. Any mechanic or laborer or material-man who shall perform labor or furnish materials for the construction or repair of any building, shall have a lien upon such building, and the land upon which the same is situated, for such labor done or material furnished, when the amount exceeds $20. Claims must be filed with the clerk of the Supreme Court of the District within sixty days after the work is completed.

WILLS. To dispose of real estate or personal property by will, males must be twenty-one, and females eighteen years of age, must be of sound mind and capable of making a deed or contract. Three witnesses are required. Married women may bequeath their separate estate. Wills are recorded in the registry of wills.

FLORIDA.

ASSIGNMENTS. As no insolvent or assignment laws are in existence in this State, debtors may assign their property with or without preference.



ATTACHMENT may issue by plaintiff giving bond with two securities in at least double the debt or sum demanded. Affidavit must be made setting forth the amount actually due; that defendant is a non-resident, and that plaintiff has good reason to believe he is about to part with his property fraudulently before judgment can be obtained, or intends to remove from the State, or to fraudulently secrete his property, etc. No arrest is allowed in civil actions, and no imprisonment for debt except in case of fraud. Jurisdiction of justices of the peace limited to $100.

CHATTEL MORTGAGES must be recorded, unless property is delivered within twenty days and remains in the possession of the mortgagee. Unless the mortgaged property be delivered at the time of execution of the mortgage, or within the twenty days, and unless such mortgage shall be recorded in the office of record for the county in which the mortgaged property shall be at the time of said execution, the mortgage becomes ineffectual and invalid. Foreclosure is made by bill in equity or petition to the Circuit Court of the county in which the property lies.

DEEDS may be acknowledged before any judge, justice of the peace or notary public, or before the clerk of a Circuit Court. If executed in another State, or foreign country, they may be acknowledged the same way as in Alabama. Deeds must be in writing, sealed and delivered in the presence of two witnesses, and must be recorded within six months after the sealing and delivery of the instrument. A scroll is sufficient for a seal.

DIVORCE. Applicants for divorce must have resided two years within the State. Absolute divorces may be granted only by the Circuit Courts. Adultery, impotency, bigamy, extreme cruelty, habitual intemperance or desertion for one year are sufficient causes. Alimony may be granted to the wife by the courts, and provision for a division of property when a decree is granted.

EXEMPTIONS. A homestead of 160 acres of land, together with improvements, in the country, or a residence and one-half acre of ground in a village or city, is exempted to the head of a family. Also personal property to the value of $1,000. No property is exempt from sale for taxes or for obligations contracted for its purchase or for the erection of improvements thereon. The wages of every laborer who is the head of a family are also exempt under any process of law.

MARRIED WOMEN retain all real or personal property owned at marriage or acquired thereafter, and are not liable for the husband's debts. In order that it shall be free from his debts, the property must be inventoried and recorded within six months after marriage or subsequent acquirement of the property. The wife may sell and convey all real estate inherited by her the same as if she were unmarried; but her husband must join in all sales, transfers and conveyances of her property, both real and personal. She is entitled to dower in a life estate in one-third of all the real estate of which her husband was seized and possessed at his death or at any time during his life, unless she has relinquished the same; also an absolute one-third of his personalty.

MECHANICS' LIENS. Mechanics and laborers have a lien upon a building for which they have furnished labor and materials, and upon the owner's interest in the lot on which the building stands. Claims must be filed within six months after the work is done or materials furnished, and suit be brought within one year. Agricultural laborers have a lien on the crops cultivated by them to the amount of their wages, and laborers and contractors have a prior lien on logs, lumber, etc., for their labor in cutting or manufacturing the same into boards, laths or shingles. Machinery furnished for any mill, distillery or manufactory obtains a lien to the extent of the interest of the tenant or contractor.

WILLS. Any person twenty-one years of age and of sound mind may dispose of real or personal property. Three witnesses are required. Nuncupative wills must be proved by three witnesses who were present when it was made, and such will may be reduced to writing and sworn to within six days.

GEORGIA.

ASSIGNMENTS are regulated by a statute which permits preferences, except by special partnership, but every assignment made by a debtor insolvent at the time, either in trust or in behalf of a creditor, is fraudulent and null and void when any trust or benefit is reserved to the assignor, or any person for him. There is no insolvent law and no imprisonment for debt.



ATTACHMENTS may issue by plaintiff filing bond in double the amount involved, when defendant is a non-resident, is about to remove without the limits of the county, absconds, conceals himself, or resists legal arrest, attempts to remove property beyond the State, or fraudulently disposes of property, or threatens or prepares so to do, or creates a fraudulent lien thereon. First attachment levied has priority. Garnishment issues in aid of attachment or judgment, but wages of journeymen, mechanics and laborers are exempt from garnishment. Jurisdiction of justice of the peace is limited to $100.

CHATTEL MORTGAGES must be recorded within thirty days in the county where the mortgageor resides; and if the property is situated in another county, it should be recorded there also. Foreclosure by affidavit before justice, notary, or, if non-resident, before commissioner for the State.

DEEDS must be attested by two witnesses, and if not recorded within one year the deed loses priority over a subsequent deed recorded within the year. A deed must be in writing, under seal (a scroll will answer), and made for a consideration. Acknowledgments within the State may be taken by a judge or clerk of a court of record, commissioner of deeds, justice of the peace or notary public. In other States or Territories, by a commissioner of deeds for Georgia, or judge of court of record in the State where executed, with a certificate of the clerk under the seal of such court of the genuineness of the signature of such judge.

DIVORCE. Grounds for total divorce are as follows: Marriage within the prohibited degrees of affinity or consanguinity; mental or physical incapacity at the time of marriage; force, menace, duress or fraud in obtaining it; adultery, wilful desertion by either party for three years, cruel treatment by, or habitual intoxication of either party, or sentence to the penitentiary for two years or over for any offence involving moral turpitude. No total divorce may be granted except by the concurrent verdict of two juries, rendered at different times of court; and when a divorce is granted, the jury rendering the final verdict determines the rights and disabilities of the parties.

EXEMPTIONS. Each head of a family, or guardian, or trustee of a family of minor children, and every aged or infirm person, or person having the care and support of dependent females of any age, who is not the head of a family, is entitled to realty or personalty, or both, to the value in the aggregate of $1,600. Said property shall be exempt from levy and sale by virtue of any process whatever, under the laws of this State, except for taxes, purchase-money of the homestead, labor done thereon, or material furnished therefor, or for the removal of encumbrances.

MARRIED WOMEN retain as a separate estate all property in their possession at the time of marriage, or afterwards acquired and are not liable for any debts, defaults or contracts of the husband. By

consent of her husband advertised for four weeks she may become a free trader, in which event she is liable the same as if unmarried. The wife may not bind her estate by any contract of suretyship, either in behalf of her husband or any other person. The widow takes dower in one-third of all the lands of which her husband was seized at his death; and wife and children, after the husband's death, are entitled to one year's support from his property, all other claims yielding to this.

MECHANICS' LIENS. Mechanics, not having taken personal security, have a prior lien on the property built or repaired by them, which lien attaches, without regard to the title, in said property. The claimant must have substantially complied with his contract, must have recorded his lien within three months in the clerk's office of the county in which the property is situated, and must bring suit within one year after it becomes due. Those furnishing machinery, or labor for its repair, officers and employes of steamers or other water craft, millwrights, and builders of railroads, have a like lien if similarly enforced. Landlords have a special lien for rent on crops, which is superior to the homestead exemption law, and to all other liens except for taxes.

WILLS may be made by persons of either sex who have arrived at the age of twenty-one years. Three witnesses are required. Wills are recorded in the Ordinary's Court. Married women may bequeath their separate estate.

IDAHO.

ASSIGNMENTS. An insolvent law exists, under which the debtor is discharged upon making an assignment, as therein provided, except in cases of fraud.

ATTACHMENTS may issue in actions upon contract for the direct payment of money, when the plaintiff has no lien or security, or when the defendant is a non-resident, etc. Jurisdiction of justices of the peace is limited to $300.

CHATTEL MORTGAGES must be recorded in the county where the debtor resides; otherwise they are null and void as regards creditors and purchasers. Record should also be filed in the county where the goods may be. Affidavit must be made as to good faith, and no intention to defraud creditors.

DEEDS must be acknowledged the same as in Dakota; they must be in writing, signed and sealed (scroll will do), and no witnesses are required. Dower and curtesy are unknown. The husband must join in conveying the realty of the wife, who must be examined privately, certifying that the act is free and voluntary, without fear or compulsion, or influence of the husband, and that she does not desire to retract the execution of the same.

EXEMPTIONS. A homestead worth $5,000 is exempted to a householder who is head of a family; either husband or wife may select the homestead. Personal property is also exempted to the value of $300. Exemption does not extend to purchase-money or to mortgages on the property.

MARRIED WOMEN. All property, both real and personal, owned at marriage or afterwards acquired, by either wife or husband, remains a separate estate. All property acquired after marriage is held in common. Separate property of the wife should be inventoried with the county recorder; the husband has control of it during marriage, but cannot create a lien or encumbrance unless joined by the wife, who is examined separately. If the husband mismanages, or commits waste, the District Court may, on application of wife, appoint a trustee to manage her separate property. Upon the death of husband or wife half the common property goes to survivor; if no direct descendants, all goes to survivor.

MECHANICS' LIENS. The improvement and development of mines, claims, flumes, bridges and ditches come under the law of mechanics' liens. Claims must not be less than $25. Original contractor must file his claim within sixty days; others within thirty. The lien expires after one year unless suit is brought, and continues in force two years and no longer. Mechanics or artisans have a lien on articles left with them to repair or alter, and may sell them within two months unless charges are paid, provided the sale be advertised for three weeks.

WILLS. At twenty-one years of age testator may dispose of realty, and at eighteen of personal property; two witnesses are required. Married women may dispose of their separate estate, both real and personal. Husband must leave wife one-half of common property. The will must first be recorded in the Probate Court, afterwards in all counties where any realty is conveyed by the will.

ILLINOIS.

ASSIGNMENTS are made without preference, and all debts must be paid *pro rata*. While no provision is made for the discharge of the debtor, yet all proceedings may be discontinued with the assent of the debtor and a majority of the creditors in number and amount. The County Court has jurisdiction in all cases of assignment for benefit of creditors. Assignee must file bond, inventory and valuation, and send notice to creditors, who must present their claims under oath within three months. Claims not so presented do not share in dividends until after the payment of all claims properly presented and allowed. Assignee is required to make legal division among creditors at the first term of court after the three months allowed, and to render final account within one year. No insolvent law.



ATTACHMENTS may issue by plaintiff giving bond with approved security, in double the amount of the claim. Plaintiff must also make affidavit to one or more of the following facts: That the debtor is non-resident, conceals himself, resists process being served on him, has departed from the State or is about to do so, with the intention of removing his effects; or has, within two years preceding, fraudulently disposed of his property, or a part thereof, so as to hinder or delay creditors; or where the debt sued on was fraudulently contracted. Writs may issue from courts of record on claims exceeding $20, from justices' courts not exceeding $200, and in county courts claims may not exceed $1,000. The wages of any person who is head of a family are exempt from garnishment to the amount of $50. Jurisdiction of justices of the peace is limited to $200.

CHATTEL MORTGAGES should be properly acknowledged and recorded, although as between the parties themselves this is not necessary. Property must be fully described so it may be identified. They are invalid as to third parties if given for longer than two years, or if the property mortgaged is allowed to remain in possession of the mortgageor, unless expressly provided for in the mortgage. A mortgage given on a stock of goods is fraudulent as to third parties, if the mortgageor be allowed to remain in possession of the goods.

DEEDS may be acknowledged before a master in chancery, notary public, United States commissioner, circuit or county clerk, justice of the peace, any court of record having a seal, or any judge, clerk or justice of any such court. Outside of the State and in the United States, in conformity with the laws of the State, Territory or District where made. The officer must be authenticated by the certificate of the county clerk or clerk of record under his official seal. If before a justice of the peace, it must be certified by the proper clerk, under the seal of his office, that the person before whom the acknowledgment was made was a justice of the peace at the time of making the same. No deed will waive homestead right, unless expressly stated, both in the deed and certificate of acknowledgment. A scroll answers for a seal, and no witnesses are required.

DIVORCE may be granted, where complainant has been a resident of the State for one year, for impotency, bigamy, adultery, desertion or drunkenness for two years, attempt upon the life of the other by poison or other means showing malice, extreme cruelty, conviction of felony or other infamous crime. If no defence is interposed, decree may be granted on testimony of complainant alone; but examination of witnesses must be had in open court, and the judge is required to be satisfied that all proper means have been taken to notify defendant. When decree is granted the court may restore the wife's maiden name. During pendency of suit the court may require the husband to pay such sum as may enable the wife to maintain or defend the suit, and alimony, when declared just and equitable.

EXEMPTIONS. A homestead valued at $1,000 is exempted to every householder who has a family; such exemption not covering liabilities for purchase-money or improvement of the homestead. After the death of a householder his family are entitled to the exemption so long as the survivor occupies it, or until the youngest child is twenty-one years of age. There are also exempted to every person wearing apparel, school books, family pictures and family Bible, and $100 worth of other property selected by the debtor. In addition to this, $300 worth may be selected by the debtor if a head of a family; but such selection cannot be made from any money or wages due; no exemption is allowed when the debt is for the wages of laborer or servant; $50 of wages is exempt to every head of a family if residing with the same.

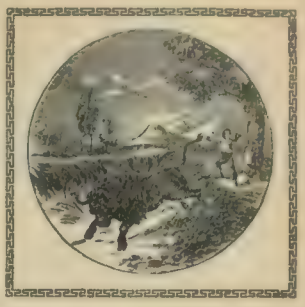
MARRIED WOMEN may own in their own right realty and personalty, may sue and be sued, contract and incur liabilities, the same as if unmarried; but they may not enter into or carry on any partnership business without consent of the husband, unless abandoned by him or he is incapable of giving assent. Beyond the necessaries, the husband is not liable for debts of the wife, except in cases where he would be jointly liable if the marriage did not exist. The estate of both is liable for family expenses, but the wife's separate earnings are her own. A surviving wife or husband takes one-third of all the realty of the deceased, unless relinquished in due form. The husband and wife are put upon the same footing as to dower, and the estate of curtesy is abolished.

MECHANICS' LIENS. Any person who shall, as principal contractor, by contract, express or implied, with the owner of any lot or piece of land, furnish labor, material or services, in building, altering, repairing or ornamenting any house or building on said lot, shall have a lien upon the lot or building for the amount due him for such labor, material or services; provided, that the owner shall only be liable to the extent of his interest therein; and every subcontractor, mechanic, workman or other person who shall, in pursuance of the original contract, perform any labor or furnish any materials for the purposes above mentioned, shall have a lien as in the case of principal contractors, the aggregate of such liens not to exceed the price stipulated in the original contract, unless it shall appear to the court that the owner and principal contractor designed to defraud sub-contractors by fixing an unreasonably low price in the contract. When the contract is expressed, if the time stipulated for its completion is beyond three years from its commencement, or if the date of payment is more than one year from its completion, there shall be no lien. If the contract is implied, no lien shall be had unless the contract be completed within one year from its commencement.

WILLS. All males twenty-one, and all females eighteen years of age, may dispose of real and personal property. Two witnesses are necessary. Wills are filed in the Probate Court, and originals remain there.

INDIANA.

ASSIGNMENTS. By filing with the recorder of the county in which assignor resides, within ten days after its execution, an indenture duly signed and acknowledged, setting forth a full description of all his realty and accompanied by a schedule of all his personalty, to which assignor makes oath, any debtor in embarrassed circumstances may make a general assignment of all property in trust for the benefit of all *bona fide* creditors. Trustee makes oath and files bond in Circuit Court, also copy of assignment, within fifteen days after execution of indenture. If the trustee named fails to act, the court may appoint a substitute upon petition. Trustee's compensation is fixed by the court, and dividends are declared *pro-rata* on all claims allowed by trustee or the court. No provision for discharge of debtor from his liabilities.



ATTACHMENTS may issue against the property of non-residents or foreign corporations, and against all who have disposed of, or are about to dispose of their property to defraud, hinder or delay creditors. Plaintiff must give bond to answer damages if proceedings are unjust or oppressive. An affidavit is also required, which may be made by the creditor or his attorney. All creditors who file under the original attachment, before final judgment, share *pro rata* in the proceeds of the attached property. Jurisdiction of justices of the peace is limited to $200; or $300 upon confession.

CHATTEL MORTGAGES are not valid as to third parties unless recorded within ten days; a mortgage of perishable articles left in the hands of the grantor, with right to use the same, is void; a mortgage on a stock of goods, the grantor having a right to sell, is void; any mortgage is void if unregistered and the chattels left with the grantor; so also is a recorded mortgage if the goods are left unreasonably long with the grantor, after default is made in payment.

DEEDS must be in writing, and acknowledged and recorded within forty-five days from their execution; seals are abolished and witnesses are not necessary; dower and curtesy are unknown; husband and wife must join in conveying the separate estate of either. Acknowledgments within the State may be taken before a judge or clerk of a court of record, justice of the peace, auditor, recorder, notary, or mayor of a city; in other States and Territories before similar officers or a commissioner of deeds for Indiana.

DIVORCE. Petitioners for divorce must be *bona fide* residents of the State for two years, and of the county at the time of, and for at least six months prior to filing the petition; the oath of two resident freeholders being required to this fact. Decrees may issue by the Superior or Circuit Court for the following causes: Impotency at marriage; adultery (where connivance or collusion is not proven); habitual cruelty or habitual drunkenness by either party; abandonment for two years; failure by the husband to provide for the family for a period of two years, and conviction of either party of an infamous crime at any time subsequent to marriage.

EXEMPTIONS. There is no homestead exemption; any resident householder has exempted real or personal property, or both, to the amount of $600 on any debt founded on contract since May 31st, 1879. On debts founded on contracts made previous to that date, exemption is $300. Exemption does not, in any event, affect liens for labor, purchase-money or taxes.

MARRIED WOMEN retain all realty and personalty owned by them at marriage, or afterwards acquired, and are not liable for the husband's debts. The husband is liable for debts of the wife contracted before marriage only to the extent of the personal property he may receive from or through her, or derive from sale or rent of her lands. She may sell personal property, but she may not convey or encumber her real estate unless the husband joins. Suits against her separate estate should be brought in the name of both. A widow takes one-third of her deceased husband's real estate in fee simple, free from all demands of creditors, where the estate does not exceed $10,000; where the estate is over $10,000 and under $20,000, she takes one-fourth; and one-fifth if it exceeds $20,000. She also takes one-third of the personalty after payment of debts, and in all cases

takes $500, without accounting, and may occupy the dwelling and forty acres of land for one year, rent free.

MECHANICS' LIENS. Workmen, contractors, mechanics and others who may furnish labor or materials have a lien on the land and buildings for material or labor furnished; the statute also provides a lien on all boats, for work or repairs, or wages earned. Employes of corporations have a lien on the property and earnings for all labor done, which takes precedence of all other claims. Contractors have a lien on railroads where they are not in operation; commission merchants on goods left for storage, artisans on articles left for repair, and landlords on crops raised on leased lands. Notice must be filed within sixty days after the completion of the work, and suit must be brought within one year.

WILLS. All persons twenty-one years of age may bequeath both real and personal property. Record must be made in the office of the county clerk where probated. Two witnesses are required. Nuncupative wills may not exceed $100. Married women may dispose of their separate estate.

IOWA.

ASSIGNMENTS without preferences are allowed, regulated by statute. A debtor may make assignment for the benefit of all creditors, with inventory and schedule of debts. Claims must be filed with the assignee within three months after publication of assignment. Dividends are made *pro rata* after State and municipal taxes have been paid in full. An assignment does not discharge the debtor from all liabilities.



ATTACHMENTS are substantially the same as in Illinois. Upon plaintiff giving bond for penalty and making affidavit that defendant is a non-resident or a foreign corporation, has disposed of or is about to remove his property, intends to permanently remove from the State, has absconded or concealed his property, a writ of attachment may issue. Jurisdiction of justices of the peace is limited to $100; by consent of parties, $300.

CHATTEL MORTGAGES must be acknowledged and recorded the same as deeds and other conveyances. The mortgaged property is left in possession of the mortgagee unless otherwise provided. Sales under foreclosure may be made in the same manner as other sheriff sales, and foreclosure may be made by sheriff without action of court.

DEEDS must be in writing, signed and acknowledged; no seal or scroll is necessary; no witnesses are required. Acknowledgments in the State may be made before a judge or clerk of any court of record, county auditor or his deputy, each notary or justice of the peace in his own county. Out of the State, before some court of record, notary public or justice of the peace, or a commissioner for the State of Iowa.

DIVORCE may be granted by the District or Circuit Court of the county in which plaintiff resides. Plaintiff must declare under oath that he or she has resided in the State for one year next preceding the filing of the petition, unless defendant is resident, and received personal service of the writ. A decree may issue against the husband for adultery, wilful desertion for two years, conviction of felony subsequent to marriage, habitual drunkenness and continued ill-treatment. The husband may obtain a decree for like causes, and also when the wife at the time of marriage was pregnant by another. Bigamy or impotency at the time of marriage is also a sufficient cause to annul.

EXEMPTIONS. A homestead in country of 40 acres, or in town or city of one-half acre, with improvements and buildings to the aggregate value of $500, is exempted to the head of every family. If less than $500 in value, it may be increased to that amount. It is not exempted from execution for the purchase-money thereof, or for debts contracted prior to its acquirement. Upon the death of either husband or wife the homestead passes to the survivor. Professional men are allowed their libraries, instruments, etc., and a team and wagon; printers retain their presses and type to the value of $1,200. The head of a family may claim wearing apparel, tools, a gun, his library and furniture to the extent of $200 in value. The personal earnings of the debtor for ninety days preceding the execution, certain stock, with food for them for six months, a pew in church and a lot in a burying ground are also exempt. Non-residents and unmarried persons, not being heads of families, can only claim their ordinary wearing apparel and trunk necessary to carry the same, to the value of $75.

MARRIED WOMEN may own in their own right real and personal property acquired by descent, gift or purchase, may sell, convey and devise the same, may sue and be sued, make contracts and buy goods in their own name. Wife or husband are not liable for the debts of the other before marriage, or for separate debts incurred afterwards. The wife's earnings are her own, and her note is good against her own estate. Women attain majority at eighteen, or earlier upon marriage; a female of fourteen may marry. The surviving wife or husband is entitled to one-third of the real estate of the deceased, free from all claims of creditors. If they leave no children, survivor takes one-half, parents the other half.

MECHANICS' LIENS. Mechanics and workmen have a lien upon buildings and improvements, and the ground upon which they are situated, for work done or materials furnished. Railways are liable for construction and improvements. The taking of collateral security invalidates a lien. The lien must be filed by principal contractor within ninety days; by sub-contractor and others, within thirty days. Suit must be brought within two years after filing statement. Liens have priority in the order in which they are filed, and are assignable; and when for labor alone, they are exempt from execution.

WILLS. Testators must be twenty-one years of age. Two witnesses are required. Nuncupative wills cannot exceed $300 worth of property, and must be sworn to by at least two disinterested witnesses. Foreign wills must be probated in the State.

KANSAS.

ASSIGNMENTS must be for the benefit of all creditors alike, and do not discharge the debtor. Creditors whose claims amount to more than ten dollars are notified by the clerk of the District Court, and a meeting is held to choose an assignee. Unless a majority of the creditors are present the appointment rests with the court. Those who fail to appear are precluded. One month is given assignee to pay out funds in his hands after allowance of demands. The property must be appraised, and assignee is in all respects subject to order of the court, and his accounts are passed upon by a commissioner before his discharge. An assignment must be executed and recorded the same as any conveyance of real estate. No insolvent law.



ATTACHMENTS are substantially the same as in Illinois. They may be had against the property of non-resident debtors, or in cases of fraud or attempt to remove or secrete property. Money or property due or belonging to defendant may be reached by garnishment. Jurisdiction of justices of the peace is limited to $300.

CHATTEL MORTGAGES need not be acknowledged; copy of mortgage deposited with register of deeds in county where mortgageor lives. Mortgage of perishable articles left in the hands of mortgageor

with right to use them, or of a stock of goods left in the hands of the mortgageor with privilege to sell, are void as to creditors of the mortgageor unless they are duly notified.

DEEDS must be in writing; neither seals, scrolls nor witnesses are required. Acknowledgments in the State must be before a court having a seal, a judge, justice or clerk thereof; a justice of the peace, notary public, county clerk or register of deeds, or mayor or clerk of a city; outside the State, before a court of record, or clerk or officer holding the seal thereof, a notary public, justice of the peace, or commissioner appointed by the Governor of Iowa; if before a justice of the peace they must be accompanied by a certificate of his official character, to which the seal of some court shall be affixed. No separate acknowledgment is necessary on the part of the wife, but she should join the husband in conveying, whether the property is her separate estate or not.

DIVORCE. To obtain a decree of divorce, plaintiff must have resided in the State one year, and must bring suit in the county of residence. Decrees are granted in the Circuit Court on the following grounds: Adultery, impotency, fraudulent contract, extreme cruelty, habitual drunkenness, gross neglect, abandonment for one year or conviction of felony.

EXEMPTIONS. An independent fortune is exempted in this State. A homestead of 160 acres of farming land, or of one acre within an incorporated town or city, with buildings and improvements thereon, with no limit to value. The head of every family is allowed personal property as follows: The family library, school books and family Bible; family pictures and musical instruments in use; pew in church and lot in burial ground; all wearing apparel of the family, beds, bedsteads and bedding, one cooking stove and appendages and all other cooking utensils, and all other stoves and appendages necessary for the use of the debtor and his family; one sewing-machine, spinning-wheel and all other implements of industry, and all other household furniture not herein enumerated, not exceeding $500 in value; two cows, ten hogs, one yoke of oxen and one horse or mule, or in lieu of one yoke of oxen and one horse or mule, a span of mules or horses; twenty sheep and their wool; food for the support of the stock for one year; one wagon, two plows, drag and other farming utensils not exceeding in value $300; grain, meat, vegetables, groceries, fuel, etc., for the family for one year; the tools and implements of any mechanic, miner or other workman, kept for the purpose of carrying on his business, together with stock in trade not exceeding $400 in value; library, instruments and office furniture of any professional man. Residents, not the head of a family, have tools, implements and stock in trade up to $400. No personal property is exempt for the wages of any clerk, mechanic, laborer or servant. A lien on the homestead may be created by husband and wife joining in the mortgage.

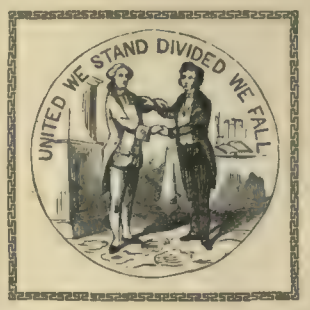
MARRIED WOMEN have the same property rights as men, and may make contracts, carry on business, sue and be sued, and sell or convey real estate precisely as their husbands; their earnings or profits are their own. A note or endorsement made by a married woman will bind her property the same as if unmarried. Homestead is absolute property of widow and children, and neither wife nor husband may bequeath more than half their property without written consent of the other. If either die intestate and without children, the entire property goes to the survivor.

MECHANICS' LIENS. Mechanics, workmen and others performing labor, or furnishing materials for the construction or repair of any building, have a lien on the building and the whole tract of land. Original contractor must file his claim in the office of the Circuit Court within four months; sub-contractors and others, within two months. Suit must be brought within one year. Artisans or mechanics may hold articles of construction or repair, and if charges are not paid within three months they may sell the same.

WILLS are recorded in the office of the Probate Court; if made in other States they must be probated in the county where the property lies. The testator must be twenty-two years of age, and two witnesses are required.

KENTUCKY.

ASSIGNMENTS are regulated by statute. Any preference may be set aside in six months. Trustee must give bond, and settle his account in two years. A general assignment for the equal benefit of all creditors may be made, and all claims must be proven. There is no provision for the discharge of an insolvent debtor unless debts are paid in full. No insolvent law.



ATTACHMENT issues where defendant is non-resident or a foreign corporation, or has been absent from the State, evades service, conceals, attempts to remove, disposes of or conveys property with intent to defraud or delay creditors. Plaintiff must give bond in double the amount of his claim, with security.

CHATTEL MORTGAGES must be duly acknowledged and recorded, and, except as to creditors having actual notice, take effect only from the time they are recorded in the county clerk's office. The mortgaged property may remain in possession of the mortgageor, and may be redeemed within five years.

DEEDS executed in this State by others than married women are acknowledged before the clerk of a County Court, or may be proved by two subscribing witnesses, or by one who also proves the attestation of the other, or by proof of two witnesses that the subscribing witnesses are both dead or out of the State, or one so absent and the other dead, and like proof of the signature of one witness and the grantor. The deed of a married woman must be acknowledged before a clerk of the County Court, who shall explain to her the contents and effect of the deed separately and apart from her husband; if she freely and voluntarily acknowledge the same, and is willing for it to be recorded, he shall certify the same. Deeds made by residents of Kentucky must be recorded within sixty days from the date thereof; four months is allowed to non-residents, and if living out of the United States, twelve months. The record dates from the time when the clerk's fee is paid. No seal or scroll need be used, and no witnesses are required.

DIVORCE. Before a petition can be presented for a decree of divorce, one year's continuous residence in the State is required. Jury trials are not permitted, and decrees are granted by courts having equitable jurisdiction. An absolute divorce may be granted to the party not in fault on the ground of adultery, impotency, etc., separation for five years, condemnation for felony subsequent to the marriage, force, duress or fraud in obtaining the marriage, or uniting with any religious society which requires a renunciation of the marriage contract. Habitual neglect or maltreatment on the part of the husband, or where the husband is a confirmed drunkard, may give the wife a divorce; and where the wife is proven unchaste, or pregnant by another man at the time of marriage, the husband is entitled to divorce. The parties are free to marry again, and their personal property is restored.

EXEMPTIONS. To *bona fide* housekeepers with a family are exempted from execution and attachment for debt: A homestead to the value of $1,000; two work beasts, or one work beast and one yoke of oxen; two cows and calves; one wagon or cart; two plows and gear; five head of sheep; provisions for family and provender for stock for one year; the tools and stock of a mechanic who is a housekeeper and has a family, not exceeding $200 in value; libraries or instruments of professional men, which may vary in value from one to seven hundred dollars; the wages of a laboring man to the amount of fifty dollars, except for house rent and necessaries.

MARRIED WOMEN may hold real or personal property as a separate estate free from the control of the husband or liability for his debts. By petition to the Circuit Court, in which the husband must

join, she may acquire the right to transact business in her own name. Unless dower be barred, forfeited or relinquished, she takes one-third of the real estate and one-half of the personal property.

MECHANICS' LIENS. Mechanics, laborers and workmen, under the general law, have a lien for labor performed or materials furnished upon the improvements and interest of the employer in the land. Sub-contractors and workmen have a lien by giving the owner written notice of their claim, and that they look to the land and improvements for compensation. Claims must be filed within sixty days. Suit must be brought within six months after filing the account.

WILLS. Any person twenty-one years of age may make a will. The will must be proved in the County Court of the county where testator resided. If the will was written by the testator himself, only one witness is necessary; if written by any other person, two witnesses are required. Married women may dispose of their separate estate.

LOUISIANA.

ASSIGNMENTS without preferences may be made without regard to the insolvent law. Under the State laws an insolvent debtor may make surrender of property to creditors, or an involuntary surrender may be forced by any creditor who issues an execution which is returned unsatisfied. Surrender vests all property in creditors, and stops all legal proceedings against the debtor; the latter must file sworn schedules of assets and liabilities. The debtor may be discharged by consent of a majority of creditors in number and amount, unless guilty of fraud or preference, in which case he is deprived of the benefit of the insolvent laws, and is liable to imprisonment.



ATTACHMENTS may issue on application of creditor, under oath, when the debtor is about to leave the State permanently, without there being a possibility of obtaining judgment against him previous to his departure; when the debtor resides out of the State; when he conceals himself to avoid service of suit; when he has or is about to mortgage, assign or dispose of his property with intent to defraud his creditors or give an unfair preference to some of them; and when he has converted, or is about to convert, his property into money or evidence of debt with intent to place it beyond the reach of his creditors. Defendant must give bond equal to the amount of his claim, with at least one solvent surety. Jurisdiction of justices of the peace is limited to $100.

CHATTEL MORTGAGES are unknown to the laws of Louisiana.

DEEDS may be acknowledged, within the State, before a notary public, parish recorder or his deputy, in the presence of two witnesses. In other States, before a commissioner of Louisiana, or in conformity to the laws of the State where acknowledged. The husband must join the wife in conveying her real estate, and authorize her; in disposing of his own real estate, the wife must be examined separately and renounce all her rights.

DIVORCE. Sentence of either party to imprisonment in the penitentiary is sufficient ground for divorce. A decree may also be obtained by either party for adultery, habitual intemperance or cruel treatment of such a nature as to render living together insupportable.

EXEMPTIONS. A homestead of 160 acres of land, with buildings and improvements thereon, is exempted to the head of a family, if owned and occupied as a residence, together with personal property, the whole not to exceed $2,000; all wearing apparel, implements, stock, etc., with provisions and supplies necessary for the plantation for one year. If the wife own separate property in her own right to the value of $2,000, there is no exemption.

MARRIED WOMEN may hold and control both real and personal property owned at time of marriage; all property or revenues of separate property acquired by either husband or wife after marriage is held in common, and is divided equally between them at dissolution of the marriage either by death or divorce. The wife may carry on a separate business, but her husband will be bound by her contracts, so long as the community of property exists; she cannot sue without the concurrence of her husband, and she cannot bind herself or her property for his debts. There is no right of dower to the wife.

MECHANICS' LIENS are known as "privileges;" these are allowed to architects, contractors, workmen and furnishers of material. For all work exceeding in value five hundred dollars, the agreement must be reduced to writing and registered with the recorder of mortgages. To be of effect against third parties, all privileges and liens must be recorded in the parish where the property is situated.

WILLS of four kinds are recognized: nuncupative by public act; nuncupative by private act; mystic or sealed wills, and olographic wills. The first must be dictated by testator to a notary public and read in the presence of three resident or five non-resident witnesses, and must be signed by the testator and witnesses. The second must be written in the presence of five resident or seven non-resident witnesses, read to them and signed by the testator and the witnesses, or at least two of them. In the country three resident or five non-resident witnesses will suffice, if more cannot be obtained. The third form, or *mystic* will, is first signed by the testator, then enclosed in an envelope and sealed up. The testator then declares in the presence of a notary and seven witnesses that that paper contains his will, signed by himself, the notary endorses the act of superscription on the will or envelope, and that act is signed by the notary, the testator and the witnesses. Olographic testaments are written entirely by the testator himself, and dated and signed by him. No attestation or other form is required. The following cannot act as witnesses: Women of any age; males under sixteen; the deaf, dumb, blind or insane; those debarred by the criminal law from exercising civil functions; those who stand as heirs or legatees under the will, except in case of *mystic* testaments.

MAINE.

AN ASSIGNMENT without preferences may be made for the benefit of creditors, who have three months thereafter to become parties. All property, except what is lawfully exempt, of the insolvent debtor is transferred by such assignment and may not be attached for six months after first publication. Only creditors who are parties to an assignment are benefited. By the insolvent law 1878–79, where his debts exceed $300, a voluntary petition may be filed by the debtor. For involuntary proceedings, at least two creditors, owning one-fourth of the debts, should act. Assignees, approved by the court, may set aside an assignment made within four months of the filing of insolvency petition. They dispose of the property and divide the assets. The insolvent debtor is then discharged. Preferences or fraudulent conveyances are void. Proof, brought within two years, of fraud, may annul the discharge. For debts of less than three hundred dollars the debtor makes a general disclosure and is discharged.



ATTACHMENTS. All property not exempt by law is liable to attachment for debt; neither affidavit nor security being requisite, unless the creditor is a non-resident. By consent of parties or by appraisement, attached perishable property may be sold at once, and the proceeds held by the officer. Upon affidavit of creditor of his belief that the debtor is going to leave the State and take away more property than is necessary for his present support, and that has

claim is for over ten dollars, the debtor may be arrested. Debtors under arrest may make complete disclosure and be discharged. Any person owing an insolvent debtor may be held as trustee; but claims for wages under twenty dollars cannot be garnisheed except in case of debt incurred for necessaries. Jurisdiction of justices of the peace has been transferred to trial justices and municipal courts.

CHATTEL MORTGAGES for over $30 must be recorded where the mortgageor resides, or possession of property pass to mortgagee. Mortgageor may redeem within sixty days after notice of foreclosure.

DEEDS. All deeds must be under seal. Within the State acknowledgments are made before a justice of the peace or a notary public; in other States, before a magistrate, justice of the peace, notary public or commissioner of deeds for this State; in foreign countries, before a notary public or United States minister or consul. One grantor may make the acknowledgment. The wife joins to relinquish dower.

DIVORCE. The Supreme Judicial Court grants divorce for impotency, adultery, or for three years' wilful desertion. Alimony may be allowed and dower if the husband be to blame.

EXEMPTIONS. Homestead $500, or any lot purchased from State as a homestead; $50 furniture, $150 library, $300 team, $50 poultry, $100 sewing machine, $10 lumber; cow and heifer, ten sheep and lambs, plow, wagon, mowing machine, a two-ton boat, the flax, raw and manufactured, from one acre of ground, wearing apparel, provisions, fuel, seed grain, provender for stock, and tools. After the debtor's death, his family has the benefit of the exemptions.

MARRIED WOMEN. A married woman holds real and personal property, acquired in any way except from the husband, the same as if single. She may make contracts, sue and be sued and do business in her own name; and her property may be taken to satisfy judgments against her. Her property is liable only for her own debts. She joins husband in a deed selling his property to relinquish dower. He joins with her in selling hers only when such property comes from him. A wife, being abandoned by her husband, may be allowed to take and use his personal property. Dower, life estate in one-third of all husband's real property owned during coverture; one-half if no children. He has same interest in deceased wife's estate.

MECHANICS' LIEN on buildings holds good and may be enforced by attachment within ninety days. Statement must be filed within thirty days after work is done or material furnished. Lien against vessels four days after launching.

WILLS. Three disinterested witnesses. Testator must be twenty-one years of age and of sound mind. Nuncupative wills must be reduced to writing within six days. Wills devising real estate must be recorded the same as deeds.

MARYLAND.

ASSIGNMENTS. Either on his own application, or that of two or more creditors whose claims exceed $250, a debtor is decided to be insolvent. Except on proof of fraud or preference, he is discharged by surrender of his property. Claims of non-resident creditors are not affected, unless filed in the proceedings. Assignments without preferences or provisions for release of debtor are allowed.



ATTACHMENTS may be obtained by simple affidavit when defendant is a non-resident, or has absconded; and by affidavit with security in double amount of claim, where plaintiff believes defendant is about absconding, or has disposed of, or intends to dispose of or conceal his property to defraud his creditors. Attachments reach debtor's property whether in his own hands or in those of others. Wages for less than $100 not yet due cannot be attached. No imprisonment for debt. Jurisdiction of justices of the peace, $100.

CHATTEL MORTGAGES must have seal, be acknowledged and recorded within twenty days. Before recording affidavit must be made that the consideration is true and *bona fidé*. To foreclose, mortgagee gives bond and twenty days' notice before sale. Court must confirm sale.

DEEDS must be sealed and have at least one witness. Acknowledgments within the State are taken by any court of record, or justice of the peace who is certified to under seal of a court of record. In other States, by a notary public, court of record or commissioner of deeds for Maryland. In foreign countries, by United States minister or consul or notary public under seal. Wife joins husband to release dower. No separate examination. Deeds must be recorded within six months from date of execution.

DIVORCE. Absolute, for adultery, three years' abandonment, or antenuptial misconduct of wife. Partial, for cruelty, abandonment and desertion. Alimony and restoration of wife's property.

EXEMPTIONS. Besides wearing apparel, books, and tools used for earning a living, there is exempt other property to the value of $100. No homestead.

MARRIED WOMEN. Property acquired by a married woman is her own, controlled by herself, and is free from her husband's debts. She conveys by joint deed with the husband, but devises and bequeaths the same as if single. She may be sued with her husband on joint contracts made by them, and the property of both is equally liable. Dower one-third, if they have children; one-half, if none.

MECHANICS' LIEN is to one-fourth of the value. Lien lasts four years on stationary and two years on floating property. In Calvert, Charles, Kent and St. Mary's counties there are no liens on stationary property. Notice must be given to owner within sixty days and claim filed within six months.

WILLS. Age twenty-one for males, eighteen for females. Three witnesses. No witness needed for wills granting personal property.

MASSACHUSETTS.

ASSIGNMENTS. An assignment for the benefit of all creditors is good against an attaching creditor, but may be voided by an assignee in insolvency. One creditor may file petition for bankruptcy proceedings. Discharge, barring fraud or preference, is granted upon payment of fifty per cent, or by consent of majority in number and value of creditors. Attachments less than four months old are dissolved by insolvency proceedings.



ATTACHMENTS. All unexempted property is liable to attachment, but real estate may not be attached in suits for less than $20. Bond with good security being furnished by the debtor, the attachment is dissolved. The debtor may be arrested and held to bail on sworn testimony that he is about leaving the State, and that he has property which he is reserving from the payment of his debts. A debtor against whom a judgment has been obtained may be sworn as to the amount of his property, and if he refuse to surrender it, he may be arrested. He may then apply for relief by taking the poor debtor's oath. Jurisdiction of trial justices, $300.

CHATTEL MORTGAGES must be recorded within fifteen days. Foreclosure requires three weeks' notice.

DEEDS require to be under seal. No witness is needed. Acknowledgment of one grantor is sufficient. Wife joins to bar dower. No separate examination. Acknowledgments are taken by justices of the peace or notaries public. In other States, by justices of the peace,

notaries public, magistrates or commissioner of deeds for Massachusetts. In foreign countries, by United States Consuls. A certificate of his official character should accompany the acknowledgment taken by any officer other than the commissioner of deeds.

DIVORCE. Unfaithfulness, incapacity, three years' desertion, cruelty, drunkenness, neglect to provide, sentence to five years' imprisonment and joining a sect which disavows marriage, are grounds for absolute divorce. Alimony is allowed, and where the husband is at fault the wife's personal property is restored.

EXEMPTION. Homestead, $800 (must be recorded as such); furniture, $300; sewing machine, $100; library, $50; tools and implements, $100; stock in trade, $100; boats and outfit, $100; one cow; one hog and six sheep, and wages under $20.

MARRIED WOMEN. The property of a married woman is managed by herself, and is not liable for her husband's debts. She may make contracts, sue and be sued and do business in her own name, provided a certificate is filed by her or her husband in the office of the town clerk. Contracts and conveyances between husband and wife are not allowed. Her conveyances of real estate are subject to husband's tenancy by curtesy. A wife cannot make a will affecting her husband's right to one-half of the personal property and his tenancy by curtesy in her real estate, without his written consent. Dower as by common law.

MECHANICS' LIEN covers building and the lot on which it stands. A lien for material not ordered by the owner will be defeated unless he has been served with written notice when furnished. Claims must be filed within thirty days, and suit begun in ninety. Bond with security to pay the claim dissolves the lien. Timely notice in writing from the owner to sub-contractors or journeymen that he will not be responsible, will bar a lien for their claims.

WILLS. Testator must be of full age and sound mind. Three witnesses. Bequest to subscribing witness is void. Will of a married woman, unless by consent of husband, is subject to his rights by curtesy. Probate within thirty days after death becomes known.

MICHIGAN.

ASSIGNMENTS may be made either with or without preferences, providing no intent to defraud is evident. By insolvent law the debtor, with consent of two-thirds of his creditors, surrenders his property and is discharged.



ATTACHMENTS issue when defendant is a non-resident or foreign corporation. Also when he is about to remove himself or his property with intent to defraud. Garnishment whenever requisite. Wages, less than twenty-five dollars, due the head of a family, are free from garnishment. Jurisdiction of justices of the peace, $300.

CHATTEL MORTGAGES must be recorded. Each mortgage must contain provisions for its own foreclosure. Mortgagee must file affidavit every year for continuance.

DEEDS must have two witnesses. Acknowledgment before judge of court of record, justice of the peace or notary public. When a married woman joins her husband in a deed, her acknowledgment is taken separately. Record in county where land is located.

DIVORCE. Absolute divorce may be granted for incapacity at time of marriage, adultery, two years' continuous desertion, drunkenness or three years' sentence to imprisonment. A life sentence dissolves the marriage without any proceedings in court. Divorce from bed and board for cruelty and neglect to provide. Separation of property, dower and alimony as per statute.

EXEMPTIONS. Forty acres of land, with improvements, in the country, or house and lot worth $1,500 in town; furniture, $250; library, $150; two cows, five hogs, ten sheep, team, tools, provisions and fuel. No exemptions from execution for purchase-money.

MARRIED WOMEN own and control property the same as if single. A wife may do business in her own name and make contracts, even with her husband. Her separate property is liable for wrongs committed by her. Widow has dower, but there is for the surviving husband no right of tenancy by curtesy.

MECHANICS' LIENS. Copy of contract or statement of agreement must be filed. Lien holds for six months, within which time suit must be begun.

WILLS. Testator's age, twenty-one. Two witnesses. Witnesses may not be beneficiaries. Record in counties where lands lie. Nuncupative wills for more than $300 not allowed.

MINNESOTA.

ASSIGNMENTS. Inventory of property must be filed within ten days after making an assignment. Order of payments: First, debts due the United States, or the State of Minnesota, in full; second, wages for labor and service within three months preceding the assignment, in full if there be sufficient, otherwise *pro rata;* third, all other debts. No insolvent law.



ATTACHMENTS are issued on plaintiff giving bond in double amount, and making affidavit that he believes defendant is a non-resident, has absconded or is about to abscond, that he has removed or is about to remove his property; that he conceals himself to avoid summons; that he has fraudulently contracted the debt, or fraudulently evades payment. No arrest for debt. Jurisdiction of justices of the peace, $100.

CHATTEL MORTGAGES must be acknowledged and recorded where mortgageor resides, and also where the property is. They hold good for two years without renewal. If no special terms in the instrument, there must be three weeks' notice to foreclose.

DEEDS require two witnesses. Acknowledgments are taken, within the State, by justice of the peace, notary public, register of deeds, court commissioner, county auditor or judge or clerk of court of record. Outside of the State, by notary public, justice of the peace, judge of court of record or commisioner for this State. Wife joins to release dower, but need not be questioned separately.

DIVORCE. Absolute divorce for unfaithfulness, incapacity, three years' abandonment, one year's drunkenness, cruel treatment or sentence to State's prison. Limited divorce for abuse, desertion or failure to support. Plaintiff, except where breach of faith occurred in the State, must have been one year a resident. The court may order alimony and custody of children, and the wife regains possession of her real estate, unless decree has been obtained on account of her bad conduct.

EXEMPTIONS. Eighty acres with improvements, in country, or lot with dwelling on it, in town. Household property, $500; wagon, plows and farming implements, $300; three cows, ten hogs, twenty sheep, yoke of cattle and a horse, or, instead, a pair of horses; one year's provisions, fuel, feed for stock and seed grain. A miner's or mechanic's tools and stock in trade to $400; the library and instruments of a professional man. Wages under $50 of a laboring man, earned within the last ninety days, and where the debtor is publisher of a newspaper, his complete outfit to value of $2,000, and stock $400.

MARRIED WOMEN. A married woman holds property in her own name. She may make contracts, and her property is liable only for her own debts. She cannot sell or convey real estate, further than

a mortgage for purchase-money or a three years' lease, without her husband joining her. Contracts between husband and wife are void. The surviving husband or wife keeps the homestead for life, and is entitled to one-third of all the lands possessed by the deceased after all debts have been paid.

MECHANICS' LIENS. Account must have been filed within one year, and lien holds good for two years. Sub-contractors and journeymen claiming a lien by service of the papers on the owner will have the amount of their claims retained from what is due the contractor. There is also a lien for work done on personal property, which may be sold after three months if charges be not paid.

WILLS. Testator's age, twenty-one for men, eighteen for women. Two witnesses.

MISSISSIPPI.

ASSIGNMENTS, even with preferences, but without reservations for the debtor's benefit, may be made. Intent to defraud, being evident, will void any assignment. No insolvent law, and no provision for discharge of debtor.



ATTACHMENTS issue after plaintiff furnishes bond and makes affidavit that the debtor is a non-resident or has absconded or is about to abscond, has concealed himself or his property, or in any manner, by conveyance or otherwise, put his property beyond reach of his creditors, so as fraudulently to avoid payment of his debts. Resident and non-resident creditors have equal rights. The first attachment has priority over subsequent ones. No arrest or imprisonment for debt.

CHATTEL MORTGAGES must be recorded, or the property must be taken into the possession of the mortgagee. Foreclosure and sale must be provided for in the mortgage.

DEEDS. Two witnesses are needed if not acknowledged; otherwise one. Acknowledgments may be made before judges of any of the United States Courts, judges of the Supreme or Superior Courts of any of the States or Territories, justices of the peace, notaries public, or before commissioners appointed by the Governor of this State. In case of a justice or notary, his official character must be certified to under seal of some court of record. A married woman joins her husband in a conveyance to release dower, and, in making her acknowledgment, must be questioned separate and apart from him.

DIVORCE. After one year's residence in the State, divorce may be obtained for impotency, adultery, bigamy, cruelty, two years' abandonment or imprisonment in the penitentiary. Alimony is allowed when the wife is the injured party, and the court awards the custody of minor children.

EXEMPTIONS. To householding head of family, 160 acres of land and improvements in country, or house and lot in town either to value of $2,000. Tools and farming implements necessary for two male laborers; library and instruments of professional man to value of $250; two horses or mules or a yoke of oxen, two cows and calves, five hogs, five sheep; wagon, $100; personal property, $250; one sewing machine; provisions and provender; wages of a laborer, $100.

MARRIED WOMEN. A married woman holds property acquired in any manner, and the revenues therefrom, for her own use and free from control or liability of her husband. She may convey and encumber the same as if single, but husband joins in conveyance. She may devise and bequeath. Deed from husband to wife is void as to creditors at time of making it. A wife may not encumber her estate by mortgage or otherwise for her husband's debts; she may do business on her own account the same as if single, and is then liable for her contracts, housekeeping and family expenses. She joins her husband in conveyance of homestead, but not in that of his other property. Dower in property of which the husband dies seized.

MECHANICS' LIENS must be enforced by suit within six months. Liens reach land, buildings and fixed machinery, boats and vessels. *Bona fide* purchasers cannot suffer unless they have been served with notice.

WILLS. Testator must be twenty-one years of age. Three witnesses.

MISSOURI.

ASSIGNMENTS without preferences. Inventory of assets must be filed within fifteen days. Assignee gives three months' notice of a day fixed for hearing all claims.
No insolvent law.



ATTACHMENTS issue when defendant is a non-resident, or a foreign corporation, or conceals or absents himself, makes away with or attempts to place his property out of reach to defraud his creditors, or has fraudulently contracted the debt, or where the action is for damages arising from misconduct; or where debtor fails to pay for goods that were to be paid for on delivery. Garnishee process when there is occasion.
No arrest for debt. Justices of the peace limited to $150.

CHATTEL MORTGAGES. Possession of property must pass into hands of mortgagee, or else the mortgage must be recorded. Foreclosure, if for less than $100, requires sixty days' notice. If for larger amount, a judgment in court is necessary.

DEEDS. Acknowledgments are made before judge or clerk of a court having a seal, a justice of the peace or notary public. In other States, before commissioner of Missouri, or court with seal, or notary public. Wife joins in deed and must be examined separately. Record in county where land is located.

DIVORCE. Grounds: Impotency at time of marriage, unfaithfulness, bigamy, conviction of crime, drunkenness, cruelty, and one year's desertion. Petitioner must have been one year a resident of the State. Trial without jury.

EXEMPTIONS. To head of family one hundred and sixty acres in the country to the value of $1,500, a lot (thirty rods) in small town to same value, or lot (eighteen rods) in city having 40,000 inhabitants, to value of $3,000. Personal property, $300. One month's wages.

MARRIED WOMEN. A married woman controls her own property, and holds it through a trustee free from liability for her husband's debts. She may make contracts, sign notes and do business in her own name. She may make a will. She joins her husband in his conveyances to release dower. Her dower is one-third for life of all lands owned by husband.

MECHANICS' LIENS have priority over all other encumbrances that may be placed on property after the work has begun. Claims of original contractors must be filed within six months. Those of journeymen and laborers in thirty days. Of other persons in four months. Action within ninety days of claims being filed.

WILLS. Testator's age to devise real estate, twenty-one for male, eighteen for female; to dispose of personal property, eighteen, either sex. Two witnesses. Must be recorded thirty days after probate. Copy of will must be recorded in each county where devised lands may be situated.

MONTANA.

ASSIGNMENTS. No insolvent or assignment law.

ATTACHMENTS are allowed in suits on contracts for payment of money. Plaintiff gives bond in double amount. An attachment may be had before a debt is due, if debtor fraudulently disposes of property to avoid payment. Jurisdiction of justices of the peace $300.

CHATTEL MORTGAGES. Possession of property must pass to mortgagee, or the mortgage must be recorded, and must explictly state that possession is to be retained by mortgageor. Holds good one year, during which any one selling said mortgaged goods forfeits double the value to the purchaser, is guilty of misdemeanor, and is liable to fine of from $50 to $500.

DEEDS. Acknowledgments are made before a judge or clerk of court of record, justice of the peace, mayor of a city, or a register of deeds. Officer taking acknowledgment must affix his official seal. A wife must be questioned separately.

EXEMPTIONS. House and a quarter acre lot in town, or a farm of eighty acres, neither to exceed $2,500 in value. Personal property to the value of $1,400. No exemptions are good against a mortgage, a mechanics' lien or a claim for purchase-money.

MARRIED WOMEN. A list of a married woman's property filed and recorded saves it from being liable for the husband's debts, except necessaries for herself and children under eighteen. A married woman may become a sole trader by recording her intention. If she invests more than $10,000 in business she must make oath that the surplus did not come from her husband. The husband is not liable for debts contracted by her in business. She is also responsible for the maintenance of her children. A surviving husband or wife takes one-half of deceased's property, if no children; one-third if there are.

MECHANICS' LIENS. Claim of an original contractor must be filed within ninety days; that of a sub-contractor within thirty days. All liens filed within thirty days of the filing of the first one share alike. Sub-contractor's suit must begin within ninety days. That of original contractors in one year.

WILLS. Testator's age for either sex, eighteen years. Two witnesses.

NEBRASKA.

ASSIGNMENTS. Preferences, except for amounts under $100 that may be due for labor, are not allowed. Nor is an assignment clogged with conditions for release of debtor of any value. Assignee files sworn schedule within thirty days and gives bond in double amount. Recording within the thirty days is a positive feature in the validity of an assignment. No insolvent law.



ATTACHMENTS. When defendant is a non-resident, affidavit and bond in double amount must be furnished. Attachments are allowed when defendant is a non-resident or foreign corporation, removes or conceals his property, or absconds, or when the claim has already been allowed by a decree in court. On appearance of fraud the debtor may be attached in person. Garnishment in aid. No insolvent law. Jurisdiction of justices of the peace $200.

CHATTEL MORTGAGES must be recorded (mortgagee renewing annually) and holds good for five years. Foreclosure, twenty days' notice and public sale. If provided for in the instrument, no court proceedings are needed for foreclosure.

DEEDS must have one witness. Acknowledgments within the State are taken by judges, clerks of courts, justices of the peace or notaries public. In other States, by commissioners of deeds for Nebraska or by the legally authorized local officers. In foreign countries, by notaries public or United States ministers or consuls. To bar dower or curtesy a wife or husband must join in deed. No separate examination required.

DIVORCE. Unless the marriage took place in the State, and the plaintiff has since continuously resided therein, a residence in the county of six months next preceding the application is necessary. Divorce is granted on the grounds of impotency at the time of marriage, adultery, two years' desertion, drunkenness, cruelty, three years' sentence to imprisonment, or failure on the part of husband to support wife. The court may order alimony, and where a decree is granted on account of the husband's bad conduct the wife takes dower.

EXEMPTIONS. Dwelling and 160 acres of land in country, or two adjoining lots in town, value $2,000. If he has no real property, the debtor may retain personal property to value $500. Clothing, furniture, provisions, animals, tools and other things as per statute, and sixty days' wages of laborer. Exemptions are not good against mechanics' lien, mortgage or purchase-money.

MARRIED WOMEN. A married woman holds her separate property free from the disposal of her husband and from liability for his debts. She may bargain, sell, make contracts, do business, sue and be sued, all so far as her separate estate may warrant; but she cannot become surety for another, not even being allowed to bind herself for her husband's debts. Property coming to the wife from the husband is not privileged as her separate property. Dower, use for life of one-third of real estate owned by husband during coverture.

MECHANICS' LIENS. A sworn itemized account must be filed within four months of the performance of work or the furnishing of material. Lien holds two years.

WILLS. Two witnesses.

NEVADA.

ASSIGNMENTS. Insolvent law provides for discharge of the debtor without any certain percentage or consent being requisite. Discharge is only from debts entered on the filed schedule. Assignments, to be valid, must comply with the insolvent law.



ATTACHMENTS. In an action on a contract for the payment of money not secured by mortgages or lien on property within the State, an attachment may be issued, plaintiff making affidavit and giving bond. Also when defendant is a non-resident. A fraudulent or absconding debtor may be arrested, plaintiff giving at least $500 security. Jurisdiction of justices of the peace is limited to $300.

CHATTEL MORTGAGES. With the exception of a mortgage on growing crops, no chattel mortgage is valid unless possession passes to mortgagee.

DEEDS. Acknowledgments are made within the State before a judge or clerk of a court having a seal, a justice of the peace or notary public. In other States, by judge or clerk of court having a seal, a justice of the peace, notary public or commissioner for the State. Acknowledgments taken by a justice of the peace must be accompanied by sealed certificate from court of record declaring his official character. Wife joins husband in a deed and is separately examined. Signature and deed, not having been acknowledged, may be approved by competent evidence.

DIVORCE. Plaintiff must have resided six months in the county. Grounds of divorce are physical incompetency at time of marriage, adultery, one year's desertion, drunkenness, cruelty, conviction of crime and failure on part of husband to support.

EXEMPTIONS. Homestead, $5,000; tools, implements and other personal property, as per statute; miner's cabin, $500.

MARRIED WOMEN. The separate property of a married woman which is controlled by herself is such as she may have owned before marriage or acquired afterwards by gift, devise or descent. All property acquired otherwise, by either husband or wife, is common property, and under the absolute control of the husband. On the death of the husband the widow receives one-half of the common property.

MECHANICS' LIENS. Claim must exceed $25, must be recorded within sixty days, and suit must be begun within six months. A subcontractor must file within thirty days. Railroads, canals, mines, tunnels, ditches and buildings subject to lien.

WILLS. Testator's age, eighteen years. Two witnesses. A married woman disposes of her separate estate, and, with the consent of her husband, of her interest in the common property. A child whose name has been unintentionally omitted in the provisions of a will takes a share the same as if a parent had died intestate.

NEW HAMPSHIRE.

ASSIGNMENTS. Without preferences. Assignee files schedule within ten days. Claims must be proved up within six months. Dissenting creditors must give notice inside of thirty days after the assignment. They receive no benefit, but continue their claims and hold any liens they may have obtained. No insolvent law.



ATTACHMENTS are taken out on original writ, and are a lien for thirty days after judgment, during which time execution must be levied. Mechanics' lien has precedence over attachments. Trustee process to attach debtors' money or other property. Wages, to $20, exempt. On plaintiff's oath, the debt being over $13.33, debtor may be arrested if he has concealed his property or is about to leave the State to avoid payment. Jurisdiction of justices of the peace, $100.

CHATTEL MORTGAGES. Mortgagee must take immediate possession, or mortgage must be recorded with the affidavits of both the mortgageor and mortgagee that it is *bona fide* and for a real debt. Foreclosed after thirty days from breach of condition, and sale held after four days' notice. Mortgageor has a right to redeem until sale.

DEEDS. Every conveyance of real estate requires a seal, and must have two witnesses. Acknowledgments may be taken by notaries public, justices of the peace or commissioner of deeds. Wife joins to release dower. No separate examination.

DIVORCES are granted by the Supreme Court for physical incompetency, adultery, drunkenness, cruelty, three years' desertion, one year's sentence to prison or adherence to a religious sect that condemns marriage.

EXEMPTIONS. Homestead, $500; $100 furniture; $100 tools; $200 books; $500 fuel and provisions; sewing machine, cook stove, bedding and clothing, one hog, six sheep, one yoke of oxen or one horse, and four tons of hay.

MARRIED WOMEN. A married woman holds property owned before marriage or acquired afterwards, except what may come from the husband, for her own use. She may sell, convey and encumber, devise and bequeath, do business, give notes, sue and be sued. Her contracts are binding, excepting that there can be no contracts or conveyances between husband and wife, nor can the wife become security for her husband. Wife is entitled to dower.

MECHANICS' LIENS take precedence of all attachments, and hold on stationary property for ninety days; on lumber, logs and bark for sixty days, and on vessels for four days.

WILLS. Testator's age, twenty-one. Three witnesses. Nuncupative wills must be reduced to writing within six days. Probate within six months.

NEW JERSEY.

ASSIGNMENTS with preferences are void. Sworn inventory must accompany assignment. An insolvent debtor is discharged on surrender of all his property. Wages due for service or labor to the amount of $300 have precedence over other claims.



ATTACHMENTS issue when defendant is a non-resident or a foreign corporation, or absconds or assigns or conceals his property to defraud his creditors. If fraud be evident, the defendant may be arrested. Limit of jurisdiction of justices of the peace, $200.

CHATTEL MORTGAGES must either be recorded or the property must pass into possession of mortgagee. To continue claim mortgagee must renew record thirty days before the expiration of one year. Foreclosure by suit in court. No redemption.

DEEDS must be under seal, and have one witness. The word "heirs" must appear in an instrument to convey in fee simple. Acknowledgments are taken by the chancellor or justice of the Superior Court, master in chancery, judge of the Court of Common Pleas, or commissioner of deeds. In other States, by commissioners of deeds for this State or by legally authorized local officers. Husband and wife join in a deed conveying the estate of either, he to give his consent, she to release dower.

DIVORCE. Absolute for adultery, bigamy or three years' abandonment. Partial for cruelty. Applicant must reside in the State, unless the marriage or the alleged misconduct occurred here.

EXEMPTIONS. Homestead $1,500, and $200 household property.

MARRIED WOMEN. The property owned before marriage, and such as she may acquire afterwards by gift, descent or bequest, is the sole property of a married woman and is not liable for the husband's debts. She may make contracts, but cannot sell or encumber her real estate without consent of husband. She cannot endorse notes or become security. She joins husband in his conveyances and mortgages. Dower and curtesy.

MECHANICS' LIENS. Claims must be filed and suit brought within one year. On a structure erected by contract which has been filed and recorded only the contractor may claim a lien.

WILLS. Testator's age, twenty-one years. Two witnesses. Witness cannot be a beneficiary. A married woman making a will cannot impair her husband's rights by curtesy.

NEW MEXICO.

ASSIGNMENTS. No assignment or insolvent laws.

ATTACHMENTS when defendant is non-resident, absconds, conceals property or shows intent to defraud. Jurisdiction of justices of the peace, $100.

CHATTEL MORTGAGES. Growing crop is the only sort of personal property that may not be mortgaged. Possession of property must pass into hands of mortgagee, or the mortgage must be recorded. Mortgage holds for one year. For continuance, mortgagee must file renewal thirty days before each year expires.

DEEDS. Acknowledgments are made before a judge or clerk of a court of record, notary public, justice of the peace, mayor of a city or register of deeds. A married woman's separate property is conveyed by deed signed by both husband and wife. Her acknowledgment must be taken apart, and she must be questioned as to her freedom of action in the transfer.

EXEMPTIONS. Homestead, $100; $10 furniture; $20 tools; $25 provisions.

MARRIED WOMEN. The separate property of a married woman is what she owned previous to marriage, or what she may inherit. All that she acquires afterwards, and the revenues of her separate estate, go into the common property. The husband has control and management of her separate estate and the common property. There is no dower, but on decease of a husband the wife's private property is first deducted; then she receives one-half of the common property, after all debts are paid. If there be no children she has a right to all the common property.

MECHANICS' LIENS. Must file claim within sixty days, and bring suit within one year. A lien may be had on movables repaired by mechanics. Landlords may have lien on property of tenants, and inn-keepers on the baggage of their guests.

WILLS. Testators' age, fourteen for males, twelve for females. Written wills require three witnesses; verbal wills five. Probate judge may disapprove of a will, but appeal can be carried to District Court.

NEW YORK.

ASSIGNMENTS with preferences are allowed. A debtor who has been imprisoned on an execution for a sum less than $500, on making an assignment of his property, barring fraud, may be discharged immediately; and for a larger sum, after three months' imprisonment. Consent of two-thirds of creditors may hasten discharge.



ATTACHMENTS. When defendant is a non-resident or has absconded, conceals himself or is about to place his property beyond reach to defraud creditors, or in an action for damages, attachments may be issued. An unsatisfied execution being returned after a judgment, the defendant or any other persons may be examined as to property of debtor in their hands, and be forced to use what is not exempted towards payment of the debtor. Jurisdiction of justices of the peace, $200; to take confession, $500.

CHATTEL MORTGAGES must be recorded, or property must change hands. Good for only one year unless record be renewed. Foreclosure, unless by terms of mortgage, by seizure and sale after three days' notice.

DEEDS must be under seal. Within the State, acknowledgments are made before notary public, justice of the peace, surrogate, judge of court of record, recorder or commissioner of deeds. In any other State, before commissioner for this State, judge of United States Court, judge of Supreme, Circuit or Superior Court, or the mayor of a city, or before any legally authorized officer.

DIVORCE. Only for adultery will an absolute divorce be granted. Partial divorce is ordered for cruelty, desertion and neglect. Marriages are annulled for fraud or force, idiocy, lunacy or impotency at the time of marriage, or for bigamy.

EXEMPTIONS. Homestead, $1,000; $250 furniture, tools, team and other personal property; sixty days' wages.

MARRIED WOMEN may have real and personal property, buy and sell and do business in their own names. A married woman is liable for debts contracted in her own trade or business, or when an agreement or contract has been made for the benefit of her separate property, when, by the terms of such instrument, her separate property is to be charged with the liability. Dower.

MECHANICS' LIENS. Time for filing notice varies in different counties from thirty days to three months. Suit must be brought within one year.

WILLS. Testator's age to dispose of real estate, twenty-one years; of personal property, eighteen for males, sixteen for females. Two witnesses. The address of a witness acompanies his signature.

NORTH CAROLINA.

ASSIGNMENTS with preferences are allowed. An insolvent debtor, by filing petition and assigning his property to trustee for benefit of all creditors, is discharged. But property that he may afterwards acquire is liable for the same old debts. If concealment or fraud is proved the debtor may be imprisoned until he discloses all his property.



ATTACHMENTS. The creditor must give bond and security for costs and damages, and must file affidavits. An attachment is issued against the property of a debtor who is non-resident or a foreign corporation, who has left the State or conceals himself to avoid summons, or has removed or is about to dispose of his property to defraud his creditors. Personal service of summons or publication within thirty days after obtaining order for attachment is required. Publication must be continued four weeks. Justices of the peace limited to $200.

CHATTEL MORTGAGES must be recorded; may only be for property to value of $300. Foreclosure by seizure and sale after twenty days' public notice.

DEEDS must have one or more witnesses. Acknowledgments within the State are made before a justice of the peace, notary public or judge or clerk of a court of record. In other States, before a clerk of court of record or a commissioner of deeds for North Carolina. In foreign countries, before a mayor or chief magistrate of a city, or before a United States consular officer. Wife joins husband to bar dower and must make her acknowledgment separate and apart.

DIVORCE. Only for impotency or adultery can absolute divorce be obtained. Partial divorce is granted for cruelty, desertion or drunkenness.

EXEMPTIONS. A homestead to value of $1,000, and personal property worth $500. No exemption is good against taxes, purchase-money or mechanics' liens.

MARRIED WOMEN. A married woman's separate property is not liable for her husband's debts. She may devise and bequeath, but must have husband's consent to convey. Unless she be a free trader, she can make no contract other than for personal or family necessities or for payment of ante-nuptial debts, without the consent of her husband. She becomes a free trader, the husband assenting, by filing her intention. Common law dower and one year's subsistence out of husband's personal property.

MECHANICS' LIEN holds building and lot. Notice in thirty days; suit in ninety days. A lien for making or mending may be had on movables. Farm laborers or persons making advances for raising crop may have a lien.

WILLS require two witnesses, not beneficiaries. If an unwitnessed will be offered for probate it must be satisfactorily proved by three witnesses to be wholly in testator's handwriting.

OHIO.

ASSIGNMENTS without preferences, except wages to amount of $100 and individual taxes, are allowed. Assignment is filed in ten days, and schedule in thirty. Creditors must bring in their claims within six months. First dividends in eight months. Debtor is always liable.

ATTACHMENTS are issued when defendant is a non-resident, or a foreign corporation, has absconded or has removed or concealed his property, or in any manner placed it or attempted to place it beyond reach to defraud his creditors. Plaintiff giving bond with surety to cover damages, and making affidavit of fraud, the defendant will



be arrested. Garnishee except for unmatured notes. Jurisdiction of justices of the peace, $100; concurrent jurisdiction, $300.

CHATTEL MORTGAGES must be recorded; good for only twelve months unless renewed by again recording within thirty days before the expiration of the year. Same for each succeeding year.

DEEDS must be acknowledged in presence of two witnesses, before some officer in the State who is authorized to take depositions. In other States or countries, deeds may be executed and acknowledged in accordance with the local laws. Wife joins husband in a deed, and is questioned apart.

DIVORCE is granted for unfaithfulness, bigamy, incapacity, cruelty, drunkenness, deception, three years' neglect and abandonment, or imprisonment in a penitentiary. Alimony may be granted; and if the decree is obtained on account of the husband's ill conduct, the wife has her separate property and her maiden name restored.

EXEMPTIONS. Homestead is exempt to value of $1,000; if appraised to a higher value a partition is made, or an appropriate rental is charged. Clothing and necessary furniture are exempted; tools and farming implements to value $100; $50 worth of provisions and three months' wages; one horse or yoke of cattle, harness and wagon; one cow, two hogs, six sheep, and sixty days' provender, or instead, $65 in household property. A professional man's books, $100. When resident debtor, being head of a family, has no homestead, he may retain personal property to value of $500, besides other exempted property.

MARRIED WOMEN. The property of a married woman is not liable for her husband's debts, beyond a three years' lease, or a contract for the improvement of her real estate, she cannot sell or encumber it without the consent of her husband. If a married woman engages in trade, her separate property is liable for the debts she may then contract, and she may sue and be sued the same as if single. A deserted wife must procure an order from court, by which she shall have all property rights as a *feme sole*. Dower in all real estate owned by husband during coverture.

MECHANICS' LIENS. Within four months after the performance of labor or furnishing of material, a detailed statement of the claim must be sworn to and recorded, to procure a mechanics' lien. The lien holds a building and the ground on which it stands, or a bridge or any kind of water craft. A lien is good for one year, or until the lawsuit begun within the year is finally settled.

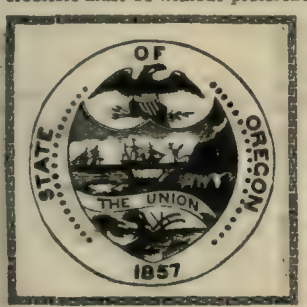
WILLS. Testator's age, twenty-one years for men, eighteen for women. Two witnesses. Unless the will had been made at least one year before the death of testator, a bequest for religious, benevolent, educational or charitable purpose would be void against the claims of children.

OKLAHOMA.

The laws of Oklahoma were compiled from the statutes of Nebraska, Indiana, Illinois and the Dakotas. The code of civil procedure is borrowed entire from that of Nebraska. Jurisdiction of justices, $100.

OREGON.

ASSIGNMENTS. A general assignment for the benefit of all creditors must be without preferences. It dissolves all attachments on which judgments have been rendered. Creditors must receive notice to present their claims, or their objections to claim. Debts to become due will be taken into account, as well as those already due. Payments are *pro rata*. The debtor is still liable. No insolvent law, but an imprisoned debtor is discharged after ten days by complying with prescribed conditions. He cannot be again arrested for the same debt.



ATTACHMENTS. Defendant being a non resident or a foreign corporation, or where the action is on a contract for the payment of money which was not secured by mortgage or otherwise, or if so secured, where such security has been vitiated by defendant, an attachment may be issued. The plaintiff gives bond in double amount. Where the debt was fraudulently contracted, or property has been removed with intent to defraud, or where personal property is unjustly withheld, or the defendant is a non-resident, he may be arrested. Limit of justices of the peace, $250.

CHATTEL MORTGAGE must be recorded at once, and is good for only one year, unless renewed by mortgagee making and recording affidavit within the thirty days before the end of the year that the debt is still due. Renewal each year in the same way.

DEEDS must have two witnesses. Acknowledgment may be taken before a commissioner of deeds for this State or before any duly authorized officer in any State or Territory, providing that the legal status of the officer taking the acknowledgment and the compliance of the deed with the laws of such State or Territory are properly certified to under seal by the clerk of a court of record in the county or district where such officer has performed such service. Married women examined separately.

DIVORCE. Plaintiff must have been a resident for one year before bringing suit. Grounds are impotency, adultery, two years' drunkenness, three years' abandonment, cruelty, conviction of felony. Plaintiff gaining the suit has a right to one-third of the real estate belonging to defendant; and if a successful plaintiff be the wife, she may have a maintenance awarded her.

EXEMPTIONS. Musical instruments, books and pictures, $75; household effects, $300; clothing, $100, and clothing to each member of the family, $50; team, tools, instruments, library or whatever is needed in the trade or profession of debtor, $400; ten sheep, two cows, five hogs, three months' provisions and six months' provender. No exemption is good against a claim for purchase-money. No homestead.

MARRIED WOMEN. A married woman holds her property free from the control or debts of her husband. She may make contracts, buy and sell, and give notes, and her own property will be liable. The husband joins in her conveyances. She may make a will, but it must not interfere with her husband's rights of curtesy.

MECHANICS' LIENS. Claims must be filed within three months. Suit begun within one year. Sub-contractors and workmen, to obtain a lien, must serve written notice on the owner before payments become due. Payments to contractors before they are due are no offset against lien of sub-contractors and workmen.

WILLS. Age, twenty-one to dispose of real estate, eighteen for personal property. Two witnesses. Children unprovided for in a will share as if the parent had died intestate.

PENNSYLVANIA.

ASSIGNMENTS must be without preferences. Sometimes a debtor prefers a creditor by confessing judgment, or making a specific assignment of certain property. No insolvent law.



ATTACHMENTS issue where debtor removes, conceals or disposes of his property, or is about to do so, to defraud his creditors, or has fraudulently contracted the debt. Also when debtor is a non-resident. On proof of fraud a defendant may be arrested, and he will be imprisoned unless he pays or gives security. Justices of the peace limited to $300.

CHATTEL MORTGAGES cannot be for less than $500, and must be recorded. Must be renewed within thirty days of expiration of the year, and the same for each

succeeding year, to maintain mortgagee's right. Thirty days' notice, or four weeks' publication before sale by public auction.

DEEDS. Acknowledgments may be taken by the mayor of a city or incorporated town, judge of a court of record, commissioner for this State, or by any officer appointed by the laws of the State where taken, providing such officer be certified to under seal by the clerk of a court of record. Wife joins to bar dower; examination separate.

DIVORCE. Plaintiff must have been a resident of the State for one year next preceding the application. Grounds: deception or force in procuring the marriage, impotency, adultery, bigamy, cruelty and two years' abandonment, and two years' sentence to imprisonment. Divorce will not be granted on the ground of adultery if proved to have been condoned. Even after a divorce, defendant is not allowed to marry a co-respondent. A wife may obtain partial divorce and alimony for ill-treatment.

EXEMPTIONS. Clothing, books, sewing-machine and $300 worth of other property. Right may be waived. No homestead.

MARRIED WOMEN. The property of a married woman is held as her separate estate, but is chargeable for family necessaries ordered by her. A wife cannot make a contract or conveyance without her husband joining her. By obtaining leave from the court she may have the benefit of her own earnings. She may make a will, saving the husband's right by curtesy. She may deposit money in bank and write checks against it in her own name. Dower, one-third of all real estate owned by husband during coverture.

MECHANICS' LIEN takes precedence of every other lien or encumbrance. Claims must be filed within six months, and liens hold good for five years. There may also be a lien held for wages up to the amount of $200 by the employes on any manufactory, mine or similar establishment.

WILLS. Testator's age, twenty-one years. Two witnesses are required, but they need not attach their signatures. A husband cannot serve as witness to wife's will.

RHODE ISLAND.

ASSIGNMENTS without preferences allowed. No provision for the discharge of the debtor.



ATTACHMENTS issue when debtor is a non-resident or a foreign corporation, has absconded or fraudulently contracted the debt, or retains property and refuses to pay. Garnishment for personal property of debtor in other people's hands. Jurisdiction of justices of the peace, $100.

CHATTEL MORTGAGES must be recorded, or the mortgagee must take possession. Foreclosure by seizure and sale.

DEEDS require a seal. Acknowledgments may be taken by a senator, judge, justice of the peace, notary public or town clerk. In other States, by the authorized officers in such States, or by commissioner of deeds for Rhode Island. The wife joins in deed to release dower; only the husband need make the acknowledgment.

DIVORCE is granted for impotency, adultery, cruelty, drunkenness, neglect to support, five years' abandonment, conviction of murder or arson, presumption of death from long absence, or for defect in marriage rendering it void. Divorces may only be decreed by Supreme Court. Alimony may be ordered, and restoration of wife's separate property.

EXEMPTIONS. Furniture and supplies for family, $300; tools, $200; library, $300; wages, $10; clothing; one cow and one hog; debts secured by negotiable paper. No homestead.

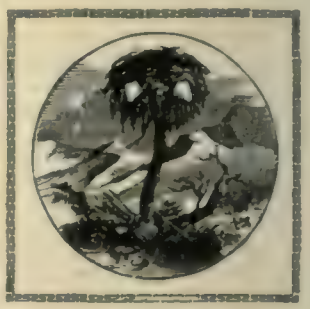
MARRIED WOMEN. A married woman's property is held by trustees for her separate use free from her husband's debts. She cannot make contracts or do business. She may make a will subject to husband's right by curtesy.

MECHANICS' LIENS. Claim must be filed and suit begun within four months.

WILLS. Testator's age, twenty-one years for disposal of real estate; eighteen for personal property. Two witnesses.

SOUTH CAROLINA.

ASSIGNMENTS. An assignment may be made, and one or more agents appointed by the creditors to act with the assignees. Creditors who do not take part in the proceedings, or accept dividends, retain their claims against the debtor. An imprisoned debtor may be discharged on making an assignment of all his property.



ATTACHMENTS are issued where debtor is a non-resident or a foreign corporation, or has absconded or concealed himself, or has removed or is about to remove his property, or has secreted or disposed of or assigned his property, or is about to do so, with fraudulent intent. Garnishment in aid. Jurisdiction of trial justices, $100.

CHATTEL MORTGAGES must be recorded within sixty days. Foreclosure by seizure and sale.

DEEDS must be under seal, and have two witnesses, and be recorded within thirty-three days in county where the land lies. Inside the State, acknowledgments are made only before notaries public and trial justices. In other States, before commissioners of deeds for this State. Wife joins to bar dower. Separate examination.

EXEMPTIONS. Homestead, $1,000; this right cannot be waived. Furniture, wagons, live stock and tools, to value of $500. Homestead exemption cannot hold against an execution for the purchase-money, a lien for improvements or for taxes. Any person not the head of a family may have one-third of his annual earnings exempted.

MARRIED WOMEN. The property of a married woman cannot be seized for her husband's debts. A married woman can bequeath, devise and encumber her separate property. She can buy in her own name and have conveyances made to her, and make contracts, the same as if she were single. A gift from husband to wife is not good against a creditor's claim. Dower rights.

MECHANICS' LIENS. Account must be filed in ninety days and suit begun in six months. The owner, by giving timely notice that he will not be responsible for the contractor's debts, may avoid the imposition of a lien by sub-contractors and journeymen.

WILLS. Three witnesses.

TENNESSEE.

ASSIGNMENTS with preferences allowed. The debtor is not discharged from his liabilities. No insolvent law.



ATTACHMENTS are issued when debtor is a non-resident, or is about to remove himself or his property from the State, or conceals himself or his property, or absconds, or has fraudulently disposed of his property, or dies out of the State. Garnishee process will reach debts due the defendant, and that are to become due, as well as property of defendant in other people's hands. No imprisonment for debt. Jurisdiction of justices, $500.

CHATTEL MORTGAGES must be registered. Foreclosure by proceedings in court unless the instrument contains power of sale.

DEEDS require two witnesses. Acknowledgments within the State are made before judge or clerk of a County Court or a notary public. In other States, before any court of record or clerk thereof, notary public or commissioner of deeds for this State. Wife need not join in deeds conveying in fee simple, but must join in trust deed. Separate examination.

DIVORCE. The applicant must have been a resident of the State for two years next preceding the petition. Grounds: physical incapacity at time of marriage, bigamy, adultery, two years' abandonment, conviction of crime, imprisonment in penitentiary, drunkenness, ante-nuptial immorality of wife, attempt of either party upon the life of the other. Limited divorce may be granted for cruelty, desertion or failure to provide.

EXEMPTIONS. Only the head of a family can have the benefit of exemptions; $1,000 homestead and a variety of personal property designated by statute, prominent items being horses, mules, oxen, cows, calves, wagon, tools, lumber, grain, provisions, beds, bedding, furniture and $30 wages.

MARRIED WOMEN. A married woman has her separate property free from the husband's control and from liability for his debts. She may encumber, convey or devise her separate property without being joined by her husband in the deed. Widow has dower in one-third of husband's real estate, and a child's share in his personalty. The husband dying intestate, leaving no heirs, the wife inherits all his property.

MECHANICS' LIEN lies on buildings and fixed machinery, and the ground on which they are erected; also on water craft. Landlords have lien on crops, growing and garnered, for advances of supplies and clothing, and for their rent.

WILLS. Two witnesses. If for only personal property, witnesses need not subscribe their names. The handwriting of an unattested will may be proved by three witnesses. Nuncupative wills have no force for amounts over $250.

TEXAS.

ASSIGNMENTS. An insolvent debtor making an assignment must have it recorded, accompanied by a sworn inventory of debts, assets, creditors, collaterals held by them and all evidences of debts to or against debtor, with complete statement of his estate, with values. The assignment may be made for the benefit of assenting creditors only; and accepting a *pro rata* will be equivalent to discharge of debtor from liability. A creditor believing debtor has concealed his property may have him summoned and examined under oath. Any fraudulent action on part of debtor is felony.



ATTACHMENTS. The plaintiff making affidavit and giving bond in double amount, an attachment is issued where defendant is a non-resident or a foreign corporation, is about to remove from the State, or secretes himself to avoid summons, conceals his property or is about to conceal it, or is about to remove it from the State, or from the county, has disposed of his property, or is about to dispose of it, is about turning his property into money, so that it cannot be reached, or has obtained property by deception. Intent to defraud is surmised in any of the allegations. Limit of justices of the peace, $200.

CHATTEL MORTGAGES must be recorded, or the property must change hands at once. Foreclosed by suit; sheriff's sale sixty days' notice.

DEEDS. Acknowledgments anywhere within the United States are made before the clerk of a court of record having a seal, a notary public or a commissioner of deeds for this State. Where a deed is not acknowledged it must be proved by two witnesses. Married women, separate examination.

DIVORCE. Applicant must be really an inhabitant of the State and a resident of the county for six months previous to filing petition; grounds, adultery, three years' desertion, unendurable cruelty.

EXEMPTIONS. Two hundred acres of land with improvements in the country, or city property to value at time of being designated as homestead (regardless of the value of after improvements) of $5,000. Furniture, farming implements, tools, books, five cows and calves, two yoke of cattle, two horses and wagon, a carriage or buggy, twenty hogs, twenty sheep, provisions, provender and many other articles. The exemption of the homestead is not good against taxes, purchase-money or mechanics' lien; but in this last case the contract must have been signed by both husband and wife. On the death of a husband, the widow and children may have one year's support out of the estate, and if the property be not in such shape as to be exempted by law, enough may be sold to raise an allowance for homestead to value of $5,000 and other property $500. Any person not the head of a family may have exempted clothing, books, horse, bridle and saddle.

MARRIED WOMEN. The property owned by husband or wife before marriage, and what either may acquire afterwards, by gift, devise or descent, is community property. The husband controls the common property and the wife's separate estate. The common property is liable for the debts of either, and the husband may dispose of it. At the death of either the survivor takes one-half and the children the other half of the common property. The husband joins wife in conveyance of her separate property. She joins him in conveyance of homestead. A married woman cannot do business in her own name, but she may become security for her husband by mortgaging her separate estate.

MECHANICS' LIENS must be on a written contract and recorded within six months. Sub-contractors and journeymen may furnish the owner with their accounts, and he must retain the amount of their claims. Landlords have lien for rent and for supplies advanced.

WILLS. Age, twenty-one years. Two witnesses. Only written wills can devise real estate.

UTAH.

ASSIGNMENTS. Common law.

ATTACHMENTS. Plaintiff holding no security gives bond and takes out an attachment where there is an appearance of the debtor's probable failure to pay the debt.

CHATTEL MORTGAGES. No statutes. Mortgagee must take immediate possession.

DEEDS must have one witness. Acknowledgments before notary public, justice of the peace, mayor of a city or judge or clerk of court of record. A married woman conveys the same as if single.

EXEMPTIONS. Homestead, $1,000; personal property to head of the family, $700, and to each member $250. Not good against purchase-money, mechanics' lien or a mortgage.

MARRIED WOMEN. A married woman's separate property is held, managed, controlled and disposed of by herself. A wife may carry on business, sue and be sued, give notes and make contracts the same as if single.

MECHANICS' LIENS. Claim must be filed within three months; suit brought within one year. Sub-contractors and journeymen must serve the owner with timely written notice.

WILLS. Testator's age, eighteen years. Two witnesses. Married women make wills the same as if single.

VERMONT.

ASSIGNMENTS must be without preferences. Insolvent law by which involuntary proceedings may be entered by one creditor having claim to $250. If assets pay thirty per cent of debts, or if majority of creditors consent, the debtor is discharged.



ATTACHMENTS on mesne process. Trustee process for property in hands of third persons.

CHATTEL MORTGAGES. All property, except fixed machinery, must be taken into the possession of the mortgagee. Foreclosed by bill in equity. Court orders sale.

DEEDS must be under seal and have two witnesses. Acknowledgments are made before a master in chancery, justice of the peace or notary public. No separate examination for married women.

DIVORCE is granted for adultery, cruelty, three years' abandonment, three years' imprisonment in penitentiary or seven years' absence without being heard of. The wife may obtain divorce where the husband, being able, fails to support.

EXEMPTIONS. Homestead, $500; growing crop, clothing, furniture, sewing-machine, tools, one cow, ten sheep, one hog, three hives of bees, poultry, one yoke of oxen or two horses, fuel, provisions and provender; also the instruments and library of a professional man, $200.

MARRIED WOMEN. The property of a married woman is held separate, and is not liable for her husband's debts. In conveyance of the wife's real estate, the husband must join in deed. A married woman may make a will. Widow has dower in one-third the real estate of which the husband died seized.

MECHANICS' LIENS. On buildings suit must be brought within three months; on vessels in eight months.

WILLS. Three witnesses.

VIRGINIA.

ASSIGNMENTS may be made with preferences. The debtor is still liable. No insolvent law.



ATTACHMENTS are issued against a non-resident debtor or a defendant who is removing or about to remove his property out of the State *pendente lite*, or a tenant removing his property before the rent becomes due, or a debtor taking his property out of the State before a debt is due. Garnishment will reach debts due the defendant. Plaintiff must give bond and file affidavit. Also, an arrest will be made on plaintiff's affidavit that he believes defendant is about to abscond. The defendant will then have to give a bail-bond or be imprisoned.

DEEDS. Acknowledgments are made before a notary, justice, commissioner in chancery, or before the judge or clerk of any county or corporation court. In other States, before any court or clerk of a court, or justice, or notary, or commissioner in chancery, or commissioner of deeds for Virginia. Record must be made within sixty days. Wife joins to bar dower. Separate examination. The acknowledgment of a married woman must be made before two justices of the peace, or before an officer having a seal.

DIVORCE. Grounds: impotency, adultery, sentence to penitentiary, guilt of either of infamous crime before marriage, the other being ignorant, notorious immorality of wife before marriage, five years' abandonment. Partial divorce for cruelty or desertion. Alimony and maintenance of children are decreed, and the care of the children is given to either party at the discretion of the court.

EXEMPTIONS. The head of a family who is a householder has a homestead exemption to value of $2,000, which may be in real or personal property, both or either. Also clothing, sewing-machine, furniture and animals; books, $100; tools, $100. The value of the exemptions outside of the homestead is varied according to the number in family, and ranges from $50 to $500.

MARRIED WOMEN. A married woman holds the property owned by her previous to marriage, and what she may afterwards acquire, as sole trader, free from the control of her husband, and from liability for his debts. She may make a will subject to husband's rights by curtesy. Common law dower.

MECHANICS' LIENS. Claim must be filed within thirty days; suit brought within six months. Sub-contractors and journeymen must notify owner within ten days.

WILLS. Age, over twenty-one to dispose of realty; eighteen, personalty. Two witnesses.

WEST VIRGINIA.

ASSIGNMENTS are made by deed, acknowledged and recorded as are all such instruments. If real estate is assigned, the wife must join in the deed. There being no insolvent law, an assignment does not cancel the liability of the debtor. A defendant under arrest for debt, on making a conveyance of his property, will be discharged from such arrest.



ATTACHMENTS. The creditor first making affidavit, attachments are issued, where debtor is a non-resident, or is about leaving the State, or conceals himself to avoid summons, is removing his property out of the State, or is in any manner trying to put it out of reach to defraud his creditors. Bond and security being furnished by creditor, the sheriff takes complete possession of the attached property. Garnishment on third parties. No imprisonment for debt. But defendant may be arrested if about removing himself or his property with intent to defraud.

CHATTEL MORTGAGES. Common law. Form, deed of trust.

DEEDS. Acknowledgments are made before a notary public, recorder, or judge or clerk of any court of record in United States, or before a commissioner of deeds for West Virginia. A married woman must be examined separate and apart from her husband.

DIVORCE is granted for mental or physical defect at time of marriage, unfaithfulness, three years' abandonment, sentence to penitentiary, conviction of crime before marriage, or notorious immorality of either before marriage, the other party being ignorant. Partial divorce may be obtained for cruelty or desertion. Alimony and custody of children is decreed by the court.

EXEMPTIONS. Homestead, $1,000, where the property has been granted or devised for the purpose, to the head of a family, or where he has devoted such property to that purpose by having it so recorded. Also personal property to value of $200. Tools to mechanic, $50.

MARRIED WOMEN. The property of a married woman, however acquired, except from the husband, is held for her sole and separate use. Husband must join in conveyances of real estate. Dower.

MECHANCS' LIENS. Must file claim within thirty days and bring suit within six months.

WILLS. Testator's age, twenty-one years. Two witnesses.

WASHINGTON.

ASSIGNMENTS. Unless fraud or preference is evident, the insolvent law allows the discharge of debtor whose assets equal thirty-three per cent of debts. Wages to amount of $100 are preferred claims.

ATTACHMENTS issue where debtor is non-resident or a foreign corporation, absconds, removes his property or attempts to place it out of reach of his creditors. Plaintiff gives bond. Jurisdiction of justices of the peace, $100.

CHATTEL MORTGAGE must be accompanied by the affidavit of both parties that it is *bona fide*, and made with no fraudulent design. When for exempted property, wife must join. A chattel mortgage must be acknowledged and recorded the same as a deed of conveyance.

DEEDS must have two witnesses. Acknowledgments are taken by notary public, justice of the peace, judge or clerk of court of record, mayor of a city or register of deeds. In any other State or Territory, according to the laws of such State or Territory. For conveyance of separate real estate of a wife, she must be joined in the deed by her husband, and she must be questioned apart from him. No dower or curtesy rights.

EXEMPTIONS. Homestead (must be actually occupied) to the value of $1,000; clothing, books, bedding and household goods, to value of $1,500; one small boat, to value of $50; two cows, five hogs, bees, poultry, fuel and provisions. To a farmer, two horses, or two yoke of oxen, and farming implements to value of $200. To professional man, library worth $500, office furniture and fuel. To lighterman, his boats, to value of $250. To drayman, his team.

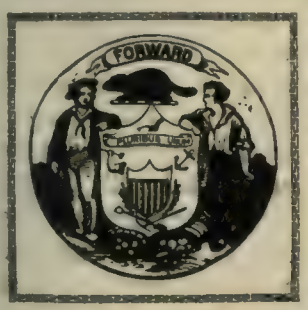
MARRIED WOMEN. The property owned before marriage by husband or wife, and all acquired afterwards by gift, devise or descent, to either, is separate property. All otherwise acquired is common property, subject to control of the husband. He also controls the separate property of the wife, but cannot sell or convey it without her joining in the deed. To save the separate property of the wife from attachment for husband's debts, there must be an inventory of it on record.

MECHANICS' LIENS. Notice must be filed within sixty days, and suit begun in four months. Every kind of structure, and the land thereunder, is covered by lien. There may also be a lien on logs, timber and lumber for work; and by the owner of land where such timber is cut. Farm laborers have lien on crops, but where crop is raised on shares, the landlord's portion cannot be touched.

WILLS. Age, twenty-one for men, eighteen for women. Two witnesses.

WISCONSIN.

ASSIGNMENTS. An insolvent law, whereby debtor may file petition, list of assets and liabilities with his affidavit, and make an assignment for the benefit of all creditors. After publication a jury trial may be exacted by the creditors. If the decision is in favor of the debtor, the assignment is decreed, and debtor is discharged from all his debts. Proof of fraudulent practice on part of debtor would void the discharge.



ATTACHMENTS issue when the debt is over fifty dollars in amount, on affidavit being made and bond given that the defendant has gone away or concealed himself, is a non-resident or foreign corporation, or is about removing his property. On affidavit and bond of creditor, defendant may be arrested if he is about to leave the State, or conceals property. Garnishment in aid.

CHATTEL MORTGAGES must be recorded, or possession of property pass into hands of mortgagee. Foreclosure by seizure and sale.

DEEDS must have two witnesses. Acknowledgments are made before notaries public, justices of the peace, judges and clerks of courts, commissioners of deeds; and in other States, according to the laws of such States. A married woman must join in a deed to bar dower.

DIVORCE. Unless the parties had been married and since remained in the State, the applicant must have been for one year a resident before filing petition. Absolute divorce is granted for impotency, adultery, one year's abandonment, five years' separation, three years' sentence to penitentiary, cruelty and drunkenness. Partial divorce for desertion, cruelty, drunkenness or failure to provide. The court may decree alimony, and the wife regain her separate property.

EXEMPTIONS. Forty acres in the country, or one-quarter of an acre in town, with the dwelling thereon. Clothing, household furniture, $200; books, two cows, ten hogs, ten sheep, one horse and yoke of cattle, or a pair of horses and mules, farming tools, one year's provisions and provender. To a mechanic, tools, $200; professional man, his library, $200; a publisher or printer, his outfit to $1,500. To any head of a family, sixty days' earnings. No exemption good against a mechanic's lien or claim for purchase-money.

MARRIED WOMEN. A married woman has all property rights the same as if single. She may buy and sell, lend and borrow, make conveyances, and have real estate conveyed to her, and all such business may be transacted between her and her husband as between strangers. She may sue alone, but in being sued she must be joined to husband. Dower, life interest in one-third of all husband's realty held during the marriage. Husband has wife's realty for life.

MECHANICS' LIEN. Must file petition in six months and bring suit in one year. Sub-contractors and journeymen must notify owner within thirty days of the furnishing of material or labor.

WILLS. Two witnesses.

WYOMING.

ASSIGNMENTS. Must be without preferences, without reservations for benefit of assignor and without provisions forcing creditor into a compromise or release of his claims. No insolvent law.

ATTACHMENTS. Plaintiff must make affidavit and give security before an attachment is issued. A non-resident or absconding debtor, or one who conceals his property to avoid payment, is liable to the process. Jurisdiction of justices of the peace, $200.

CHATTEL MORTGAGES must be recorded or the property must pass into possession of mortgagee. Sale without consent of mortgaged property by the mortgageor is a felony and may be punished by imprisonment in the penitentiary for a term less than ten years.

DEEDS must have two witnesses. Acknowledgments may be taken before justices of the peace, notaries public, judges and clerks of courts of record, registers of deeds and mayors of cities. In the States and other Territories, before commissioners of deeds for Wyoming or before officers authorized by the laws of such States or Territories. Married women join in conveying common property. Separate property they convey alone.

EXEMPTIONS. House and lot in town or one hundred and sixty acres of land in the country, either to value of $1,500. Tools, team and stock in trade of mechanic, miner or other person, $300. Benefit of exemption can only be claimed by a *bona fide* resident householder.

A **MARRIED WOMAN** may carry on business, make contracts, keep her own earnings, hold property, real or personal, receive the rents in her own name, sue and be sued, make a will, free from any control or interference of her husband, the same as if she were single. Her property is not liable for the debts of her husband. Women in this Territory have the right to vote and hold office.

MECHANICS' LIENS. Claim must be filed within sixty days, and suit begun within one year.

WILLS. No statutes. Common law.

CAUSES OF SUCCESS AND FAILURE.

"Is there one whom difficulties dishearten — who bends to the storm? He will do little. Is there one who will conquer? That kind of a man never fails."
JOHN HUNTER.

WHILE it is impossible, in a world made up of widely differing individuals, to formulate a set of rules by which each could be shown the surest and swiftest way to secure success in life, still it is possible to call attention to certain qualities of mind and character whose possession has come to be universally looked upon as essential to those who may aspire to struggle into the front rank of the world's workers. As a matter of fact, it would be as difficult to define the common expression "success in life" as it would be to lay down a royal road which leads to it. Given a hundred definitions, from as many men, each treating the subject from his own standpoint, and no two of them would be found alike; and the opinion of each of these, as time passed along with its inevitable ups and downs, would be found to vary considerably. Flushed with recent success, the speculator to-day would see in the possession of millions and in the control of vast interests the only proper goal for a man of his great genius; tamed a few days later by unexpected reverses, and he sees in some conservative enterprise the fittest sphere of his future usefulness. Perhaps, then, without attempting the impossible, in a definition of success in life which will fit all who are seeking it, it will do to look upon it as the accomplishment of the laudable life-purpose of a man of natural or cultivated parts, who has found an object in life worth living and working for, and has worked honestly and perseveringly to attain it. As a rule, the larger the endowment of those faculties which go to build up success in life, the higher the aim which accompanies them; but it must not be forgotten that man is the most cultivable of all God's creatures, and that by careful and intelligent study of the qualities which have enabled others to shine, one may acquire them and employ them in building up similar accomplishments. This being so, it does not lie in the power of the young man who feels that he possesses only a moderate share of intelligence, force and ability, to decide, on this account, that he is not called upon to make fight for one of the front places in the life of his generation. The most brilliant lives have often been those of men of ordinary gifts, who, exerting to the utmost such power as has been given them, have accomplished more than hundreds of men who were much more bountifully supplied with mental qualifications. If any man look among the circle of his acquaintances he will be surprised to see how few have made the voyage of life successfully, and sorrow cannot but arise when he considers the impotent conclusions to which

young men of brilliant parts frequently come. Every day witnesses the triumph of patient and studious mediocrity, and men of great intellect are constantly being forced to acknowledge, with surprise, the success of persons whose abilities, in comparison with their own, have been deemed inconsiderable. These men know precisely the scope of their faculties, and never wander beyond them. They wait patiently for opportunities which are of the kind they can improve, and they never let one pass unimproved. Being unnoticed, they excite so much the less opposition, and at last they surprise the world by the attainment of an object which others deemed as far away from their ambition as it seemed beyond their reach.

How to Avoid Failure.

It is a common thing, with both the brilliant and the mediocre, when the reward of their exertions and the result of their plans seem unsatisfactory, to blame the ever-ready scapegoat, bad luck, as the cause of the untoward outcome. One of the most healthful and profitable exercises which a young man who has just experienced failure of any kind can perform, will be to analyze the whole transaction with merciless candor, finding out just what proportion of the disaster is due to his own fault and what is due to fortuitous circumstances, and then make a cold-blooded comparison. If this were more generally done than it is, there would be far fewer believers in, or rather blamers of, luck as a business marplot than are at present to be found. To come down to the facts in the case, without going so far as to dispute the existence of such a thing as chance, in almost all cases of failure the cause is to be found in the man, and the reason it is not found there is because that is the last place in which the man hunts for it. "Untoward accidents," "fate," "destiny," "ill-fortune," "evil star," "chance," "luck," or some other synonym of the scapegoat, suggests itself to the victim of ill-success, and he consoles himself with charging upon it his failure. He has the poets on his side, too. Does not Shakspere say:

> "There's a divinity that shapes our ends,
> Rough-hew them how we will."

And Byron:

> "Men are the sport of circumstances, when
> The circumstances seem the sport of men."

And, after all has been said, it were better, perhaps, that the young business man place some little, very little, credence in luck's existence, just enough, in fact, to cause him to so organize upon solid and substantial foundation each of his enterprises, and to so honestly and perseveringly conduct them, that the smallest possible loop-hole will be left for ill-luck to make its appearance.

Choosing an Occupation

Is seldom an easy matter. In some few cases, a young man feels the possession of such an unmistakable bias to some peculiar profession that neither he nor his friends have any hesitancy in deciding upon his future. In most cases, however, there is no particular preference, and a wise decision is not reached before many considerations have been carefully weighed. In far too many cases wrong considerations are given attention, and a decision is reached whose ultimate result is a life failure which, had the profession been selected with greater wisdom, would not have happened. A socially ambitious father and mother check their young son's honest ambition to become a mechanic, send him to college, and make a briefless barrister out of the material which could have been moulded into an honest and efficient artisan. Many a boy whose soul yearned for the higher walks of intellectual culture, to share in which he had been endowed, has been doomed by injudicious parents, who despised colleges, to dull life at a dry-goods counter or counting-room desk. Parents are not by any means infallible judges upon this point, and every young man about to start out in search of success in life should study himself carefully in order to discover his aptitudes. The natural bent may be hard to find, but the discovery will well repay the search. Historical biography teems with the lives of men whose peculiar aptitude was early displayed to the advantage of themselves and the world. Napoleon, a school boy at Brienne, led the mimic armies of his youthful associates; Nelson had conceived the idea of future greatness as a sailor before he entered the navy; Pascal contributed to the mathematical literature of his age before he was seventeen; Pope acknowledged that

> "While yet a child and still a fool of fame,
> I lisped in numbers, for the numbers came;"

Dryden illustrated the growth of natural aptitude when he wrote:

> "What the child admired
> The youth endeavored, and the man acquired;"

Michael Angelo stayed away from school to draw pictures; Murillo covered his text-books with them; West, at seven, plundered the cat's tail of hair with which to make pencils; Calhoun, a student, held his own in debate with the college president—and so on, until the examples of the theory of natural aptitude become too numerous for recapitulation.

Taking for granted that one has discovered, or believes that he has discovered, his bent, he must beware of the danger which lies in fickleness of purpose, which may, shortly after the weariness of work begins to be felt, lead him to suppose that he has chosen unwisely, and that some other field of usefulness would be more suitable to his temper and parts. It is the practical repetition of the old story of the traveller in the express train sighing for the quiet pleasure of the farmer, whose broad fields are flying past, while the farmer looks longingly at the train as it dashes by, and dreams of the enjoyable excitements of a life of endless bustle, stir and energy. Whatever the calling, there will be toil and trial for its

follower, and these come from him rather than from the occupation, which might be changed a dozen times in the vain hope of escaping from them. Having deliberately selected a profession, stick to it. The longer you remain in it, the more expert you become and the easier becomes the work and the larger the pay. It is only the early days which bring weariness and pain. These conquered by perseverance, the rest is easy, and the success in conquering the first pleadings of the siren fickleness of purpose, who is of closer kin to laziness than one might think, lays the corner-stone of success in life.

Excelsior!

Having chosen his occupation, the young man of proper ambition will not be long in selecting for himself an honorable position in it, to be filled as soon as he has shown himself worthy and able. What men have accomplished shows that hardly any ambitious longing can be considered as unwise on the part of those who are willing to undertake all work and suffer all want in the struggle.

The extremest poverty has been no obstacle in the way of men devoted to the duty of self-culture. Professor Alexander Murray, the linguist, learned to write by scribbling his letters on an old wool-card with the end of a burnt heather-stem. The only book which his father, who was a poor shepherd, possessed, was a penny Shorter Catechism; but that, being thought too valuable for common use, was carefully preserved in a cupboard for the Sunday catechizings. Professor Moor, when a young man, being too poor to purchase Newton's "Principia," borrowed the book, and copied the whole of it with his own hand. Many poor students, while laboring daily for their living, have only been able to snatch an atom of knowledge here and there at intervals, as birds do their food in winter time when the fields are covered with snow. They have struggled on, and faith and hope have come to them. A well known author and publisher, William Chambers, of Edinburgh, speaking before an assemblage of young men in that city, thus briefly described to them his humble beginnings for their encouragement: "I stand before you," he said, "a self-educated man. My education is that which is supplied at the humble parish-schools of Scotland; and it was only when I went to Edinburgh, a poor boy, that I devoted my evenings, after the labors of the day, to the cultivation of that intellect which the Almighty has given me. From seven or eight in the morning till nine or ten at night was I at my business as a bookseller's apprentice, and it was only during hours after these, stolen from sleep, that I could devote myself to study. I did not read novels; my attention was devoted to physical science and other useful matters. I also taught myself French. I look back to those times with great pleasure, and am almost sorry I have not to go through the same experience again; for I reaped more pleasure when I had not a sixpence in my pocket, studying in a garret in Edinburgh, than I now find when sitting amid all the elegancies and comforts of a parlor."

William Cobbett learned English grammar when he was a private soldier on the pay of sixpence a day.

These are men who have selected an aim in life and have attained it through sticking to it. Concentration of purpose carried them through. The "Admirable Crichtons" are scarce geniuses, and no young man need be ashamed, in these days of special accomplishment, of having decided to follow a single pursuit in life—to become a man of one idea—provided it is a good one. Almost all the great men in war, literature, science, diplomacy, business, the professions, have been men of "one idea," not because they were incapable of harboring more than one, but because, having selected some one object as worthy of attainment, they gave themselves up to it solely. If was often long of coming, but it came at last. Adam Smith gave ten years to his "Wealth of Nations;" Edward Gibbon, twenty to the "Decline and Fall of the Roman Empire;" Bishop Butler, twenty to his famous "Analogy;" Kant, fifty years to his metaphysical researches; Dr. Johnson, seven years to his Dictionary. These men sought one prize and gained it. As many years have been spent by thousands of men of equal ability, who sought each a number of prizes and gained none.

A Sound Body

Is another of the essentials of success in life which are largely attainable by those who lack their possession. Mental as well as physical accomplishment depends largely upon the condition of the worker's digestion, and the thorough aeration of his blood. This can only be obtained with healthy exercise, which can only be taken by those whose muscles and nerves and wind are in good condition. "Walk twelve miles before speaking and you'll never break down," says Sidney Smith to an English Parliamentary debater. A strong intellect cannot well work with a weak body as its case. Energy without talent will accomplish more than talent without energy. The sharp edge of the woodman's axe avails nothing until the sinewy arm throws it, stroke upon stroke, against the monarchs of the forest. Take the great men of the century, and it will be seen that they combined intellectual force with physical vigor. In England, Brougham, Lyndhurst, Peel, Bright, Gladstone, Palmerston; in America, Webster, Clay, Calhoun, Grant, Sherman, Sheridan, Lincoln—all these were men capable of strong muscular exertion and of standing a prolonged physical as well as mental strain. It is told of Lord Brougham that he once worked six days on a stretch without sleep, slept from Saturday night to Monday morning, and began work again thoroughly refreshed. These men are the conservers as well as the possessors of physical force, and the young man who seeks to retain the "sound mind in a sound body" will remember that it is not so much in the cultivation of additional body strength as in the economy of what he already possesses that the art of physical culture is best applied. The idea used to be that muscularity and rowdyism were natural associates, but people found out that it is possible for a young man to be a good rower, or boxer even, and still be a worthy Christian and admirable member of society, and even that it was difficult for him to be these unless with the employment of manly

exercises he brought his physical condition up to the healthy standard. This is merely a recurrence to the old belief of the Greeks, who reverenced the muscular body as one of the noble parts of man, and made gymnastics and calisthenics a regular school exercise. Without good health and a sound body, moderate success in life may be painfully possible; with it a place in the front rank may be attained with far greater ease than otherwise.

Self-Reliance.

Among all the mental qualifications which help on to success in life, there is none which is of more importance than self-reliance. If you want a thing well done, do it yourself, says the old saw, and hence comes it that those who rely most upon themselves for the accomplishment of any aim are the ones who do the best work. "Heaven helps those who help themelves" is a well-tried maxim, embodying in small compass the results of vast human experience. The spirit of self-help is the root of all genuine growth in the individual; and, exhibited in the lives of many, it constitutes the true source of national vigor and strength. Help from without is often enfeebling in its effects, but help from within invariably invigorates. Whatever is done *for* men or classes, to a certain extent takes away the stimulus and necessity of doing for themselves; and where men are subjected to over-guidance and over-government, the inevitable tendency is to render them comparatively helpless.

It is energetic individualism which produces the most powerful effect upon the life and actions of others, and really constitutes the best practical education. The determination to be one's own helper is the secret of this individual development and strength. No greater misfortune could befall an ambitious and able young man than a legacy. A story is told of a critic who, after reviewing the promising work of a young artist, praised it, but added: "It is a pity that he can never make a great painter." "And why not?" rejoined his companion. "Because he has ten thousand pounds a year," was the sententious response. When John C. Calhoun was ridiculed by his fellow-students at Yale for his intense application to study, he raised a louder laugh against himself by replying, "I am forced to make the most of my time that I may acquit myself creditably when in Congress," and then, when the laugh was over, adding, "I assure you, if I were not satisfied of my ability to reach Congress in three years, I would at once leave college." Here was self-reliance and self-help. Calhoun knew the difficulties that lay between him and the goal of his ambition, and, while the other students were laughing at him, he was helping himself to overcome them. "The man who dares to think for himself and act independently, does a service to his race," says one of the brightest modern thinkers, and daily experience shows that it is energetic individualism which produces the most powerful effects upon the life and action of others, and really constitutes the best practical education. Schools, academies and colleges give out the merest beginnings of culture in comparison with it. Far more influential is the life-education daily given in our homes, in the streets, behind counters, in workshops, at the loom and the plough, in counting-houses and manufactories, and in the busy haunts of men. This is that finishing instruction as members of society which Schiller designated "the education of the human race," consisting in action, conduct, self-culture, self-control—all that tends to discipline a man truly, and fit him for the proper performance of the duties and business of life—a kind of education not to be learned from books, or acquired by any amount of mere literary training. With his usual weight of words, Bacon observes that "studies teach not their own use; but that is a wisdom without them and above them won by observation"—a remark that holds true of actual life as well as of the cultivation of the intellect itself. For all experience serves to illustrate and enforce the lesson that a man perfects himself by work more than by reading—that it is life rather than literature, action rather than study, and character rather than biography, which tend perpetually to renovate mankind.

Attention to Detail

Is a matter which constitutes much more than half of the battle in many spheres of usefulness, and, the more intellectual the task, the greater the necessity, very frequently, of careful and constant devotion to the little things which help to form it. Sedulous attention and painstaking industry always mark the true worker. The greatest men are not those who "despise the day of small things," but those who improve them the most carefully. Michael Angelo was one day explaining to a visitor at his studio what he had been doing at a statue since his previous visit. "I have retouched this part—polished that—softened this feature—brought out that muscle—given some expression to this lip, and more energy to that limb." "But these are trifles," remarked the visitor. "It may be so," replied the sculptor, "but recollect that trifles make perfection, and perfection is no trifle." So it was said of Nicolas Poussin, the painter, that the rule of his conduct was, that "whatever was worth doing at all was worth doing well;" and when asked, late in life, by his friend Vigneul de Marville, by what means he had gained so high a reputation among the painters of Italy, Poussin emphatically answered, "Because I have neglected nothing." On the first publication of Wellington's dispatches, one of his friends said to him, on reading the records of his Indian campaigns: "It seems to me, Duke, that your chief business in India was to procure rice and bullocks." "And so it was," replied Wellington, "for, if I had rice and bullocks, I had men; and if I had men, I knew I could beat the enemy." All men who have accomplished success in life have been conspicuous for minute attention to details as well as for general scope and vigor. The great Napoleon was a wonderful example of this. His correspondence shows him arranging for supplies of saddles, directing where cattle could be purchased, advising the procurement of shoes for the infantry, and making suggestions as to various minor details, and complaining because of discovered carelessness in the reports upon matters of detail supplied by others. Lord Brougham, alluding to this quality,

said: "The captain who conveyed Napoleon to Elba expressed to me his astonishment at his precise and, as it were, familiar knowledge of all the minute details connected with the ship."

In the face of these examples, no one should come to the conclusion that details are beneath one's notice, or that one is less brilliant in the great things of life because he pays attention to the little things. Of General Thomas it is said that he was careful in all the details of a battle, but, once in the fight, was as "furious and impetuous as Jackson." Attention to details makes a business man, or any other kind of man, "sure that he is right," and then, of course, it only remains for him to "go ahead."

Perseverance

Is the ever ready and kindly ally of those who are seeking success and feel that they do not possess the ability to attain it so quickly as others. The greatest results in life are usually attained by simple means and the exercise of ordinary qualities. The road of human welfare lies along the old highway of steadfast well-doing; and they who are the most persistent, and work in the truest spirit, will usually be the most successful. Buffon's definition of genius, "It is patience," may be exaggerated, but it hardly seems so when the accomplishments of patience are considered. Fortune has often been blamed for her blindness; but Fortune is not so blind as men are. Those who look into practical life will find that Fortune is usually on the side of the industrious, as the winds and waves are on the side of the best navigators. In the pursuit of even the highest branches of human inquiry, the commoner qualities are found the most useful—such as common sense, attention, application and perseverance. Genius may not be necessary, though even genius of the highest sort does not disdain the use of these ordinary qualities. The very greatest men have been among the least believers in the power of genius, and as worldly-wise and persevering as successful men of the commoner sort.

The extraordinary results effected by dint of sheer industry and perseverance have led many distinguished men to doubt whether the gift of genius be so exceptional an endowment as it is usually supposed to be. Thus Voltaire held that it is only a very slight line of separation that divides the man of genius from the man of ordinary mould. Beccaria was even of opinion that all men might be poets and orators, and Reynolds that they might be painters and sculptors. If this were really so, that stolid Englishman might not have been so very far wrong, after all, who, on Canova's death, inquired of his brother whether it was "his intention to carry on the business!" Locke, Helvetius and Diderot believed that all men have an equal aptitude for genius, and that what some are able to effect, under the laws which regulate the operations of the intellect, must also be within the reach of others who, under like circumstances, apply themselves to like pursuits. But, while admitting to the fullest extent the wonderful achievements of labor, and recognizing the fact that men of the most distinguished genius have invariably been found the most indefatigable workers, it must nevertheless be sufficiently obvious that, without the original endowment of heart and brain, no amount of labor, however well applied, could have produced a Shakspere, a Newton, a Beethoven or a Michael Angelo.

The world's history is full of the triumphs of those who have had to fight from beginning to end for recognition. Carey, the great missionary, began life as a shoemaker; the chemist Vanquelin was the son of a peasant; Richard Cobden was the son of a small farmer; Cook, the navigator, and Burns, the poet, were day-laborers; Ben Jonson was a bricklayer; David Livingstone, the traveller-missionary, was a weaver; Sturgeon, the electrician, and Bloomfield, the poet, were shoemakers; Andrew Johnson, President of the United States, was a tailor. At the plow, on the bench, or at the loom, these men dreamed of their future greatness, and persevered in their endeavors to accomplish it, and did so at last. Literature has provided several examples of single-handed triumph over difficulties by the persevering. Lord Brougham, working for over sixty years at law, literature, politics and science, and achieving distinction in all, was advised by Sir Sidney Smith to confine himself to only the transaction of so much business as three strong men could get through.

Another hard-working man of the same class was Lord Lytton. Few writers did more, or achieved higher distinction in various walks—as a novelist, poet, dramatist, historian, essayist, orator and politician. He worked his way step by step, disdainful of ease, and animated throughout by the ardent desire to excel. On the score of mere industry there are few living English writers who have written so much, and none that have produced so much of high quality. Like Byron, his first effort was poetical ("Weeds and Wild Flowers") and a failure. His second was a novel ("Falkland"), and it proved a failure too. A man of weaker nerve would have dropped authorship; but Bulwer had pluck and perseverance; and he worked on, determined to succeed. He was incessantly industrious, read extensively, and from failure went courageously onward to success. "Pelham" followed "Falkland" within a year, and the remainder of Lord Lytton's life was a succession of triumphs.

The late Premier of England, Lord Beaconsfield, affords a similar instance of the power of industry and application in working out an eminent public career. His first achievements were, like Bulwer's, in literature; and he reached success only through a succession of failures. His "Wondrous Tale of Alroy" and "Revolutionary Epic" were laughed at, and regarded as indications of literary lunacy. But he worked on in other directions, and his "Coningsby," "Sybil" and "Tancred" proved the sterling stuff of which he was made. As an orator, too, his first appearance in the House of Commons was a failure. It was spoken of as "more screaming than an Adelphi farce." Though composed in a grand and ambitious strain, every sentence was hailed with "loud laughter." "Hamlet" played as a comedy were nothing to it. But he concluded with a sentence

which embodied a prophecy. Writhing under the laughter with which his studied eloquence had been received, he exclaimed, "I have begun several times many things, and have succeeded in them at last. I will sit down now, but the time will come when you will hear me." The time did come; and how Disraeli succeeded in at length commanding the attention of the first assembly of gentlemen in the world affords a striking illustration of what energy and determination will do; for Disraeli earned his position by dint of patient industry. He did not, as many young men do, having once failed, retire dejected, to mope and whine in a corner, but diligently set himself to work. He carefully unlearned his faults, studied the character of his audience, practiced sedulously the art of speech, and industriously filled his mind with the elements of parliamentary knowledge. He worked patiently for success; and it came, but slowly; then the House laughed with him instead of at him. The recollection of his early failure was effaced, and by general consent he was at length admitted to be one of the most finished and effective of parliamentary speakers, and finally became the favored Prime Minister of Queen Victoria.

Decision of Character

Is one of the greatest of God's gifts to man, and, as every man has the germ of this quality, it can be cultivated to great advantage. It outstrips even talent and genius in the race for success in life. Thousands and thousands of brilliant men have failed for the want of courage, faith and decision, perishing in the sight of less gifted but more adventurous competitors. As Sidney Smith says, "We must not stand shivering on the brink and thinking of the cold and the danger, but jump in and scramble through as well as we can."

The old poem says:

> "He either fears his fate too much,
> Or his deserts are small,
> That dares not put it to the touch,
> To gain or lose it all."

Decision of character enables one to do the right thing at the right time. Every one knows that

> "There is a tide in the affairs of men
> Which, taken at the flood, leads on to fortune;"

but not every one has the ability to tell the time of flood, and many, after telling it, have lost its advantages through lack of nerve to embark upon it before the ebb came, and the opportunity was lost. In the smoke and din of battle, it was the genius of Napoleon which enabled him to see where one or two bold and rapid movements would secure the advantage; but it was his decision of character which enabled him to profit to the full by the discovery. To be decisive on important occasions, one must keep cool. The Duke of Wellington's calmness never forsook him, even in the most trying emergencies. At sea, one terrible night, the captain of the vessel rushed to the Duke, who was preparing for bed, and announced that the vessel would soon sink. "Then I shall not take off my boots," the imperturbable hero of Waterloo responded as he paused in his preparations for sleep. There is need for this coolness of manner and decision of action in all lines of business. The surgeon, brought face to face with a sudden complication in the case beneath his knife; the lawyer, surprised by the springing of the trap which his wily opponent had prepared for him; the merchant, apprised of a turn in his enterprises that threatens immediate disaster—all are called upon to exercise this quality, and in thousands of cases the dullest man in a company has obtained the prize simply because he grasped it while others were revolving in their minds what they had better do in order to secure it.

Other Causes of Success and Failure.

Attention, application, accuracy, method, punctuality and dispatch are the principal qualities required for the efficient conduct of business of any sort. These, at first sight, may appear to be small matters; and yet they are of essential importance to human happiness, well-being and usefulness. They are little things, it is true; but human life is made up of comparative trifles. It is the repetition of little acts which constitutes not only the sum of human character, but which determines the character of nations; and where men or nations have broken down, it will almost invariably be found that neglect of little things was the rock on which they split. Every human being has duties to be performed, and, therefore, has need of cultivating the capacity for doing them—whether the sphere of action be the management of a household, the conduct of a trade or profession, or the government of a nation.

It is the result of every-day experience that steady attention to matters of detail lies at the root of human progress; and that diligence, above all, is the mother of good luck. Accuracy is also of much importance, and an invariable mark of good training in a man—accuracy in observation, accuracy in speech, accuracy in the transaction of affairs. What is done in business must be well done; for it is better to accomplish perfectly a small amount of work than to half-do ten times as much. A wise man used to say, "Stay a little, that we may make an end the sooner."

Too little attention, however, is paid to this highly important quality of accuracy. As a man eminent in practical science lately observed to us, "It is astonishing how few people I have met with in the course of my experience who can *define a fact* accurately." Yet in business affairs, it is the manner in which even small matters are transacted that often decides men for or against you. With virtue, capacity and good conduct in other respects, the person who is habitually inaccurate cannot be trusted; his work has to be gone over again; and he thus causes an infinity of annoyance, vexation and trouble.

Method is essential, and enables a larger amount of work to be accomplished satisfactorily. "Method," said the Rev. Richard Cecil, "is like packing things in a box; a good packer will get in half as much again as a bad one." Cecil's dispatch of business was extraordinary, his maxim being, "The shortest way to do many things is to do only one thing

at once;" and he never left a thing undone with a view of recurring to it at a period of more leisure.

A French Minister, who was alike remarkable for his dispatch of business and his constant attendance at places of amusement, being asked how he contrived to combine both objects, replied, "Simply by never postponing till to-morrow what should be done to-day." Lord Brougham has said that a certain English statesman reversed the process, and that his maxim was never to transact to-day what could be postponed till to-morrow. Unhappily, such is the practice of many besides that Minister, already almost forgotten; the practice is that of the indolent and the unsuccessful. Such men, too, are apt to rely upon agents, who are not always to be relied upon. Important affairs must be attended to in person. "If you want your business done," says the proverb, "go and do it; if you don't want it done, send some one else."

An indolent country gentleman had a freehold estate producing about five hundred a year. Becoming involved in debt, he sold half the estate, and let the remainder to an industrious farmer for twenty years. About the end of the term the farmer called to pay his rent, and asked the owner whether he would sell the farm. "Will *you* buy it?" asked the owner surprised. "Yes, if we can agree about the price." "That is exceedingly strange," observed the gentleman; "pray, tell me how it happens that, while I could not live upon twice as much land for which I paid no rent, you are regularly paying me two hundred a year for your farm, and are able, in a few years, to purchase it?" "The reason is plain," was the reply; "you sat still and said *Go;* I got up and said *Come:* you lay in your bed and enjoyed your estate; I rose in the morning and minded my business."

Men of business are accustomed to quote the maxim that time is money; but it is more: the proper improvement of it is self-culture, self-improvement and growth of character. An hour wasted daily on trifles or in indolence would, if devoted to self-improvement, make an ignorant man wise in a few years, and, employed in good works, would make his life fruitful and death a harvest of worthy deeds. Fifteen minutes a day devoted to self-improvement will be felt at the end of the year. Good thoughts and carefully gathered experience take up no room, and may be carried about as our companions everywhere, without cost or encumbrance. An economical use of time is the true mode of securing leisure; it enables us to get through business and carry it forward, instead of being driven by it. On the other hand, the miscalculation of time involves us in perpetual hurry, confusion and difficulties; and life becomes a mere shuffle of expedients, usually followed by disaster. Nelson once said, "I owe all my success in life to having been always a quarter of an hour before my time."

Some take no thought of the value of money until they have come to an end of it, and many do the same with their time. The hours are allowed to flow by unemployed, and then, when life is fast waning, they bethink themselves of the duty of making a wiser use of it. But the habit of listlessness and idleness may already have become confirmed, and they are unable to break the bonds with which they have permitted themselves to become bound. Lost wealth may be replaced by industry, lost knowledge by study, lost health by temperance or medicine, but lost time is gone forever.

A proper consideration of the value of time will also inspire habits of punctuality. "Punctuality," said Louis XIV., "is the politeness of kings." It is also the duty of gentlemen, and the necessity of men of business. Nothing begets confidence in a man sooner than the practice of this virtue, and nothing shakes confidence sooner than the want of it. He who holds to his appointment and does not keep you waiting for him, shows that he has regard for your time as well as for his own. Thus, punctuality is one of the modes by which we testify our personal respect for those whom we are called upon to meet in the business of life. It is also conscientiousness, in a measure; for an appointment is a contract, express or implied, and he who does not keep it breaks faith, as well as dishonestly uses other people's time, and thus inevitably loses character. We naturally come to the conclusion that the person who is careless about time is careless about business, and that he is not the one to be trusted with the transaction of matters of importance. When Washington's secretary excused himself for the lateness of his attendance, and laid the blame upon his watch, his master quietly said, "Then you must get another watch or I another secretary."

Napoleon was a thorough man of business. Though he had an immense love for details, he had also a vivid power of imagination, which enabled him to look along extended lines of action, and deal with those details on a large scale with judgment and rapidity. He possessed such knowledge of character as enabled him to select, almost unerringly, the best agents for the execution of his designs. But he trusted as little as possible to agents in matters of great moment, on which important results depended.

Like Napoleon, the Duke of Wellington was a first-rate man of business; and it is not perhaps saying too much to aver that it was in no small degree because of his possession of a business faculty amounting to genius that the Duke never lost a battle. His magnificent business qualities were everywhere felt; and there can be no doubt that, by the care with which he provided for every contingency, and the personal attention which he gave to every detail, he laid the foundations of his great success.

THE STUDY OF CHARACTER IN ITS RELATION TO BUSINESS SUCCESS.

AS TAUGHT BY PHRENOLOGY AND PHYSIOGNOMY.

THE science of Phrenology is based on the theory that the faculties of the mind are shown on the surface of the human skull. It points out those connections and relations which exist between the conditions and developments of the *brain* and the manifestations of the *mind*, discovering each from an observation of the other.

THE ORIGIN OF PHRENOLOGY.

Franz Joseph Gall, born at Tiefenbrunn, in Baden, March 9, 1758, was the first to mark the separate functions of the human mind and trace the location of the respective organs in the human brain. After studying the natural sciences at Strasburg, he graduated as a physician at Vienna in 1785, practicing there for many years. As a boy he had observed that among his schoolmates good memories were invariably indicated by large eyes, and from this he conceived the idea that individual characteristics could be determined by external signs. The result of long-continued observation in schools, prisons, lunatic asylums and other places was the conviction that the brain, and not the heart, was the seat of all mental manifestations. After twenty years of study he decided the location of some twenty distinct mental organs and satisfied himself that their degree of activity could be determined from the shape of the skull. In 1791 he published "Medical and Philosophical Researches on Nature and Art," and in 1796 he began lecturing in Vienna on his novel theories, creating a marked sensation. In 1802 his lectures were prohibited by the Austrian government as dangerous to religion, but in company with Johann Gaspar Spurzheim, he made considerable headway in Central and Northern Europe. His principal work is entitled, "The Anatomy and Physiology of the Nervous System and of the Brain."



FRANZ JOSEPH GALL.

MEASUREMENT OF THE HEAD.

Other things being equal, the size of the head, and of the brain, the different portions of which are called organs, and classified according to their par-

ticular functions, constitutes the principal phrenological condition by which character is determined. Most great men have had great heads. Webster's head measured a little more than 24 inches, and Clay's considerably over 23. Napoleon's reached nearly 24. Hamilton's hat passed over the ears of a man whose head measured 23½. Burke's head was very large; so was Jefferson's, while Franklin's hat passed over the ears of a 24-inch head. Small and average heads often astonish us by their brilliancy and learning, and perhaps eloquence, yet fail in that commanding greatness which impresses and sways.

The general rule laid down for head-measurement of adults is as follows: The smallest size compatible with fair talents, 20¼; moderate, 20¾ to 21¼; average, 21¼ to 22; full, 22 to 22¼; large, 22¼ to 23¾; very large, above 23¾. Female heads ½ to ¾ below these averages; but as some heads are round, others long, some low and others high, these measurements cannot be depended upon to carry any accurate idea of the actual quantity of brain.



In judging of the manifestations of the mind, the *activity* of the brain is a consideration quite as important as its size. While size gives power or momentum of intellect and feeling, activity imparts quickness, intensity, willingness and even a restless desire to act, which go far to produce efficiency of mind, with accompanying effort and action. Under the heads of size, given below, the effects of the different degrees of *activity* are presented.

Very Large. One having a very large head, with activity *average* or *full*, on great occasions, or when his powers are thoroughly roused, will be truly great, but ordinarily will seldom manifest any remarkable amount of mind or feeling, and perhaps pass through life with the credit of being a person of good natural abilities and judgment, yet nothing more. With activity *great*, strength, and the intellectual organs the same, will be a natural genius, endowed with very superior powers of mind and vigor of intellect; and even though deprived of the advantages of education, his natural talents will surmount all obstacles. With activity *very great*, and the organs of practical intellect and of the propelling powers large or very large, will possess the first order of natural abilities, manifest a clearness and force of intellect that will astonish the world, and a power of feeling that will carry all before him, and, with proper cultivation, enable him to become a bright star in the firmament of intellectual greatness; his mental enjoyments will be most exquisite, and his sufferings equally excruciating.

Large. One having a large-sized brain, with activity *average*, will *possess* considerable energy of intellect and feeling, yet seldom manifest it unless it is brought out by some powerful stimulus. With activity *full*, will be endowed with an uncommon amount of the mental power, and be capable of doing a *great* deal, yet require considerable to awaken him to that vigorous effort of mind of which he is capable. If the perceptive faculties are strong or very strong, and his natural powers put in vigorous requisition, he will manifest a vigor and energy of intellect and feeling quite above mediocrity. With activity *great* or *very great*, will exercise a commanding influence over those minds with which he comes in contact; when he enjoys, will enjoy intensely, and when he suffers, suffer equally so; be susceptible of strong excitement, and with the organs of the propelling powers and of practical intellect large or very large, will possess all the mental capabilities for conducting a large business, for rising to eminence, if not to pre-eminence, and discover great force of character and power of intellect and feeling. With activity *moderate*, when powerfully excited, will evince considerable energy of intellect and feeling, yet be too indolent and too sluggish to do much; lack clearness and force of idea and intensity of feeling; unless literally driven to it, will not be likely to be much or do much, and yet actually *possess* more vigor of mind and energy of feeling than he will manifest. With activity *small*, will border on idiocy.

Full. One having a full-sized brain, with activity *great* or *very great*, with the organs of practical intellect and of the propelling powers large or very large, although he will not possess *greatness* of intellect, nor a deep, strong mind, will be very clever; have considerable talent, and that so distributed that it will show to be *more* than it really is; is capable of being a good scholar, doing a fine business, and with advantages and application, of distinguishing himself somewhat, yet he is inadequate to a great undertaking, can not sway an extensive influence, nor be really great. With activity *full* or *average*, will do only tolerably well, and manifest only a common share of talents. With activity *moderate* or *small*, will neither be nor do much worthy of notice.

Average. One having an average-sized brain, with activity only *average*, will discover only an ordinary amount of intellect; be inadequate to an important undertaking, yet, in a small sphere, or one that requires only a mechanical routine of business, may do well. With activity *great* or *very great*, and the organs of the propelling powers and of practical intellect large or very large, is capable of doing a fair business and may pass for a man of some talent. With *moderate* or *small* activity, will hardly have common sense.

Moderate. One with a head of only moderate size, combined with *great* or *very great activity*, and the organs of the propelling powers and of practical intellect, large, will possess a tolerable share of intellect. With others to plan for and direct him, will execute to advantage, yet be unable to do much alone. Will have a very active mind, and be quick of perception, yet, after all, lack momentum both of mind and character. With activity only *average* or *fair*, will have but a moderate *amount* of intellect. With activity *moderate* or *small*, will be an *idiot*.

Small or Very Small. One with a very small head, no matter what may be the activity of his mind, will be incapable of intellectual effort, of comprehending even easy subjects, or of experiencing much pain or pleasure; in short, will be a natural fool.

THE TWO PATHS.

WHAT WILL THE BOY BECOME?





ILLNESS.



INDUSTRY AND STUDY.

THE illustrations on this page are intended to show the effects of training and circumstances and different modes of life upon the human countenance. Although the inheritance at birth of a sound constitution, well-balanced mental organization and favorable temperament are most important factors in shaping character, yet the possessor of all these natural endowments may so pursue the path of life that the close will find him a miserable wretch, to go from beggary and vice to an unhonored grave. On the contrary, education and moral training can atone for the lack of natural advantages, and make of a less favored child a useful and honored citizen. The human face has in it something expressive of that which enters into and constitutes the character of a man, and on it are written, by an unseen hand, but in indelible lines which all may read, the records of life's history.

Who can divine, on looking at the head and face of the child represented above, what that young intelligence will become in the future of his life? Look at the eye, nose and mouth of the boy at school, and you will not fail to perceive, from the very contour of the countenance, that his destiny depends on the influences by which he may be surrounded.

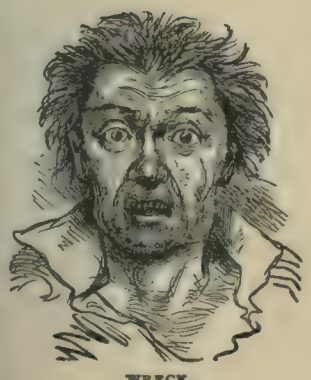
In the one instance you see him choosing his profession and contemplating a settlement in life, wedding himself to a virtuous, loving and devoted woman, and in course of time becoming surrounded by a loving family; in the other you see the man emerging from the scenes of brutal intoxication to plunge into deeper, darker vices, until life becomes a burden, and he goes down to the grave unlamented and unwept. How different this from the career of the man whose happiest days are spent in the bosom of his loving family, and who grows old amid the most genial influences, honored, revered, beloved; who goes down to his last resting-place amid the prayers and tears of those he loved, cheered by the hope of a happy reunion in a world where life is perfect and joy complete.



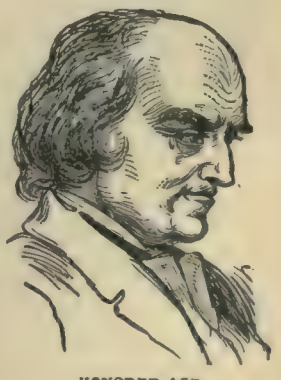
DISSIPATION.



HONORABLE SUCCESS.



WRECK.



HONORED AGE.

PHYSIOGNOMY, OR FACE-READING.

PHRENOLOGISTS do not claim that the system in which they believe is perfect, but that they have demonstrated the following facts beyond question: That the brain is the organ through which the mind manifests itself, and that each faculty of the mind has a separate and distinct organ in the brain; that the organs relating to each other are grouped together in the brain; that, other things being equal, the power of the brain may be estimated by its size; that the manifestations of brain are affected by the bodily conditions; that every faculty of the mind is devised for a good purpose, and that every faculty may be enlarged and cultivated by exercise, or may be lessened by neglect. While differences of opinion may exist as to the right which Phrenology has to be considered one of the exact sciences, all mankind tacitly acknowledges the fact that the face is a reliable reflex of the mind and character. Upon meeting a stranger we instinctively scan his face to learn whether we will like or dislike him. Our judgment is instantaneous, the impression being favorable or unfavorable. To what instinct or fact do we ascribe this? We of course judge by the expression of the face—in other words, by the *physiognomy*. This unfailing index tells whether he is intellectual or dull, kind or brutish, strong or weak of mind.



FIG. 1. THE GRADES OF INTELLIGENCE.

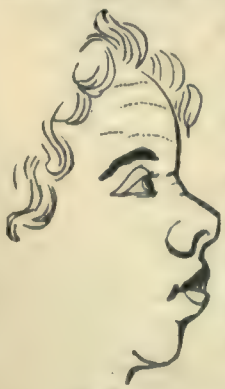


FIG. 3.

Beyond and outside of all physical characteristics, it is claimed that the mental peculiarities of the individual can be seen and known in the tone of the voice, the rapidity of speech, the sprightliness of motion, the grasp of the hand, etc.

The five faces given above, in Figure 1, illustrate the various grades of intelligence.

The face at the left is easily recognized as one of intellectual vigor. The one to the right, with its thick lips and retreating chin and forehead, bears all the evidence of intellectual feebleness. The intervening faces represent the gradations from a high to a low state of intelligence, and our opinion as to the relative intellectuality of these five faces is instantaneously formed by the shape of the head, the nose, the chin and the lips.

In the next illustrations are contrasted a pair of faces whose features and expression exemplify boldly the theory of physiognomy. Figure 2, with its straight, darting, frank eye, its intellectual Grecian nose, forehead which bears the stamp of strong perceptive faculty, firm closed lips and resolute chin, at once impresses the beholder with the presence of a person of strong and clearly defined characteristics, which have been improved by cultivation. Figure 3, on the other hand, bears all the evidences of vulgarity and ignorance, untempered by culture's softening influences. The smoothly rounded and retreating brow, the small and sunken eye, the coarse, misshapen nose, thick and sensuous lips, and weak, receding chin, indicate at a glance a nature which is strong only in vulgar and vicious propensities, and lacking almost entirely the intellectual and moral power to restrain them.

THE TEMPERAMENTS.

One of the arguments frequently used against the claim that mental ability can be determined by the size of the brain is the fact that men with small heads often accomplish more than those who have heads and bodies of much greater size.

The reply of phrenologists to this is that there are four temperaments, viz.: the *Lymphatic*, the *Sanguine*, the *Bilious* and the *Nervous*; and that every person possesses more or less of these in his physical constitution.



FIG. 2.

The Lymphatic.

The LYMPHATIC temperament is indicated by the predominance of stomach, which makes roundness of form, softness of flesh, a weak pulse and a languid condition of the system. With such the hair is light, complexion pale, eyes blue and dull.

The Sanguine.

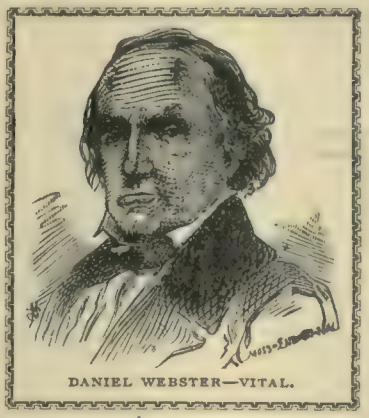
The SANGUINE temperament largely depends upon a preponderance of the arterial system. He who possesses it will have light hair and blue eyes, will be fairly rounded in muscle, will be ardent, active and enthusiastic.

The Bilious.

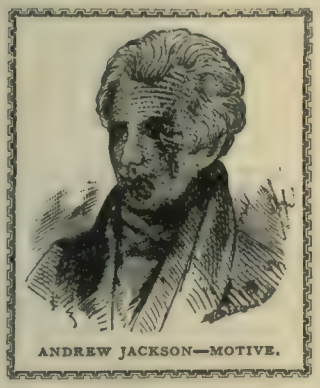
With the BILIOUS temperament the liver is taken as the basis. This is indicated by black eyes and hair, a dark and tawny skin, solid and spare flesh, angular form, great energy and activity, and, if coupled with superior mental development, large power.

The Nervous.

The NERVOUS temperament rests upon a preponderance of the nervous system. Those possessing it are known by their delicacy of health, thin and angular features, light, thin hair, rapid movements and mental activity.



DANIEL WEBSTER—VITAL.



ANDREW JACKSON—MOTIVE.

COMBINATION OF TEMPERAMENTS.

Fortunately these temperaments are generally found blended more or less with each other, and out of the combination phrenologists designate another class of temperaments called the *Motive*, the *Vital* and the *Mental*.

The Motive.

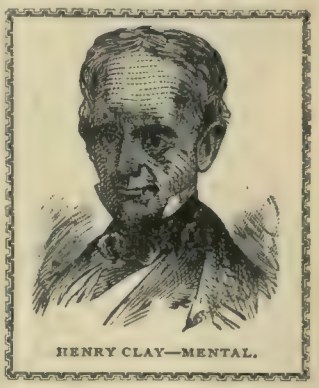
The MOTIVE temperament, corresponding to the Bilious, has a strong, bony system, an abundance of muscle, dark, wiry hair, dark eyes, rough, prominent features, dark complexion and great executive force. The Motive temperament, in its influence on mental manifestation, is favorable to dignity, sternness, determination, power of will and desire to govern and control others. It gives slowness of passion, desire for heavy labor or large business, and a liability to miasmatic diseases.

The Vital.

The VITAL temperament is evinced by large lungs, a powerful circulatory system, and large digestive and assimilating organs, abundance of blood and animal spirits. The form is plump and limbs rounded and tapering, the complexion light or florid, with an inclination to take on flesh as age advances. This temperament is a combination of the Sanguine and the Lymphatic, as set forth by Combe and other writers; but as the digestive and assimilating organs, which constitute the Lymphatic temperament, together with the respiratory and circulatory systems, which constitute the Sanguine temperament, are really vital organs, their combination into one, under the name of Vital temperament, is both convenient and philosophical.

The Mental.

The MENTAL temperament depends on the development of the brain and nervous system, and is indicated by mental activity, light frame, thin skin, fine hair, delicate features, and large brain as compared with the body. It imparts sensitiveness and vivacity to the mind, a disposition to think, study, or follow some light and delicate business.



HENRY CLAY—MENTAL.

The structures which, in excess or great predominance, determine these temperaments, exist in each individual. In one person one temperament may predominate; in the next, another. They can be modified by proper training. When combined, they give harmony of character and excellent health.



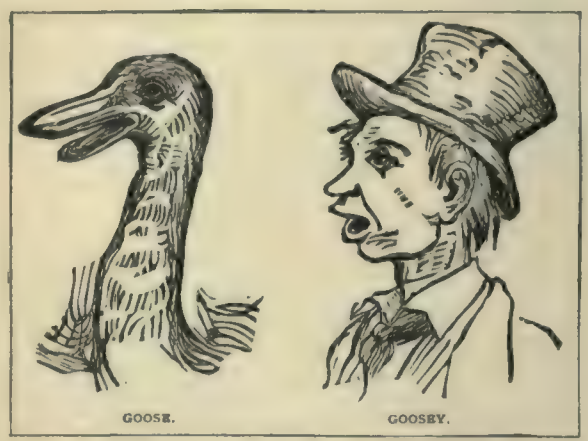
MME. DE STAEL—A PERFECT UNION AND BALANCE OF THE TEMPERAMENTS.

The Brain.

There are still other conditions upon which the phrenologist rests his case, without which he admits the *mental* power of the individual cannot be determined. It is claimed, for instance, that a loose and flabby flesh reveals a soft and spongy brain, and that a close-knit frame and firm flesh show intellectual power. Then, again, the state of the health must be taken into consideration. In perfect health the brain is strong.

COMPARATIVE PHYSIOGNOMY.

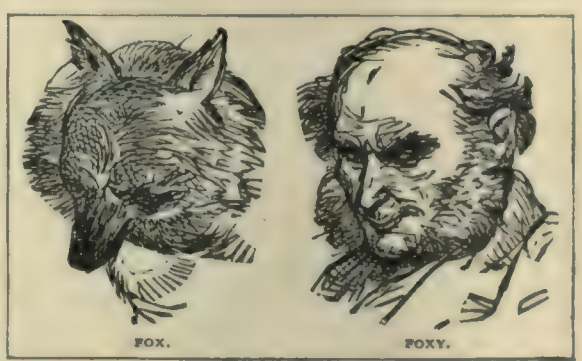
FACIAL RESEMBLANCES BETWEEN MEN AND ANIMALS.



GOOSE. GOOSEY.

MAN is distinguished from the lower animals by his reasoning powers and spiritual sentiments. The more these are developed and refined, the greater his superiority over the rest of creation. But there are many things which man has in common with the inferior creatures. Both have the senses of sight, hearing, taste, smell and touch; in both has been implanted love of life and the instinct of self-preservation. Affection and anger, caution, secretiveness, acquisitiveness, combativeness and destructiveness, in great or small degree, are manifested in animals as in men. The fox is known for his cunning. It does not surprise us, therefore, when we see in the face of a wily, crafty man, a strong resemblance to the wiliest of animals. In the illustrations the artist has depicted some striking resemblances, showing how those qualities and instincts which man has in common with the lower animals are often plainly stamped on the human face.

"What a goose!" is an expression we often hear, and no one will doubt that the young man depicted in the first of the comparative illustrations is just the kind that will be easily "plucked" if he go "gabbling" about.



FOX. FOXY.

The lion is noted for his strength and consciousness of power He is ferocious and bloodthirsty, but also capable of generosity and magnanimity. Disdaining cunning devices, he leaps upon his prey with terrible and resistless impetuosity. These characteristics are apparent in the face of his human counterpart, in which, though gentleness and amiability may be lacking, there are certainly depicted nobility and consciousness of power. Such a man, though he may crush the strong, will spare the weak and defenseless, and, though he may take counsel of his sagacity, will never descend to low cunning.

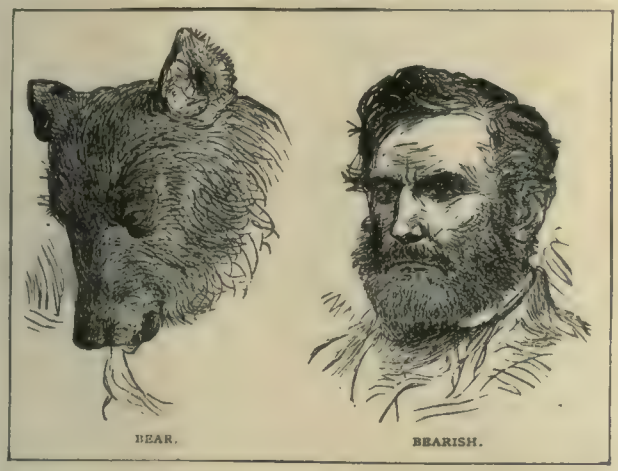
When we call one "a great bear," we hardly mean to pay him a compliment. It may be inferred that he is somewhat rough, coarse and uncouth—hardly a gentleman—but he may have his good qualities and be a useful member of society. One may be bearish and yet not unbearable. The ancients seem to have had considerable respect for the bear, at least in the feminine gender, for we have from the Latin the not uncommon name of *Ursula*, meaning a she-bear.

We have all seen people that may with great propriety be called "hoggish," though a resemblance as strong as that depicted in the illustration is but seldom met with. The characteristics of the hog are selfishness, filthiness, acquisitiveness, and, in a low sense, *in*quisitiveness. The hoggish man is greedy, makes a god of



LION. LEONINE.

his belly, and, however well supplied his table may be, he has only enough for himself. Selfishness, however, is natural and inherited by most men, while kindness and generosity are more often the result of culture. Were children not *taught* to be generous, to divide, there would be far more selfishness in the world than there is.



BEAR. BEARISH.

We read in one of Shakspere's comedies of a certain character who loudly lamented that no reporter was present to write him down an ass.* In our day the reporter is generally at hand, and men who "make donkeys of themselves" are often "written down" in that way without even being consulted in the matter. There is little harm done, of course, for if left alone they are sure to make the record themselves. Mulishness or obstinacy has ruined many a man, and where there is little culture and much ignorance we may look for conceit, prejudice and stupidity.



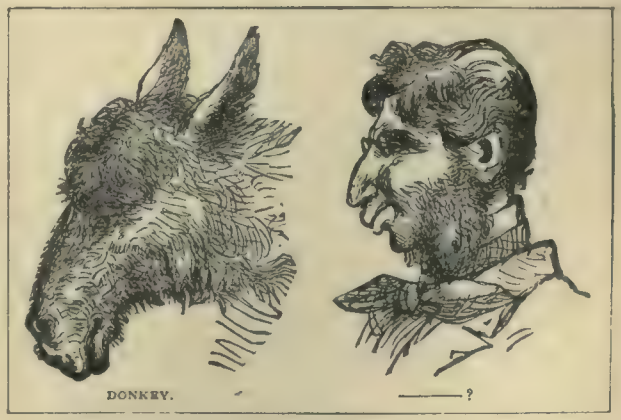
HOG. HOGGISH.

The dog will take on something of the spirit of his master, will even come to slightly resemble him by constant association. Hogarth was always painted with his dog, and it has been said that ultimately he came to resemble the animal, although it is more than probable that the latter, by remaining almost constantly in the presence of his master and endeavoring in a doggish way to understand his thoughts, words and expressions, had really come, in a limited manner, to resemble the great humorous artist. We cannot believe that the man was lost in the dog, but it is not entirely unreasonable to suppose that the dog had taken on something of the man.

The ancient physiognomists laid great stress upon the real or fancied resemblances existing between men and animals, but their speculations are of no real value. Modern writings on the subject are also mainly fanciful, and calculated to amuse rather than to instruct. We shall claim no more for this chapter, but shall be satisfied if the reader has been pleasantly entertained, the organ of mirthfulness developed, and the upward curving lines at the corner of the mouth improved. However, while admitting that Comparative Physiognomy is still in a rudimentary state, it cannot be doubted that there must be some foundation in truth for the common belief that animal resemblances may be traced among men and women, and that they have some value, little or great, as signs of character.

A COMPARISON.

As the face of a watch presents to the eye signs of the movements going on within, and ceases to tell the hour whenever those movements cease, so the "human face divine" is an index of internal emotions and loses all power to change its expression as soon as the vital powers are withdrawn. Behind the face of the watch is the machinery—which *is* the watch. Behind the human countenance are the complicated apparatuses of bones, muscles and nerves, which form the human machinery; and behind this human machinery there is what the watch has not—the soul, the mind—the controlling intelligence which precedes the living organism to which it gives rational activity.



DONKEY. ———?

"The active and plastic principle is the soul—the true man—of which the body is but the external expression and instrument."

* "O, that he were here to write me down an ass!"—*Much Ado About Nothing.*

How to Read Character.

A SYNOPSIS OF THE VARIOUS ORGANS OF THE BRAIN.

IT is only by a careful study of all the organs in combination that one may come to understand the various mental characteristics as shown by Phrenology. The accompanying diagrams give the exact location of the organs, and through the kindness of Messrs. Fowler & Wells we are enabled to give on the following pages a brief description of them, accompanied by an explanation of their influence on the character as determined by their size.

1.* Amativeness.

Reciprocal attachment and love of the sexes. **Very large**, experiences a power and activity of sexual love almost uncontrollable. **Large**, is an ardent admirer and tender lover of the other sex; feels strong sexual impulses, desire to marry, etc. **Full**, feels much love and tenderness for the opposite sex; yet, with activity great, has excitability rather than power. **Average**, loves the other sex, and enjoys their society well. **Moderate**, is rather deficient in sexual love, attentions to the opposite sex, etc. **Small**, feels little sexual or connubial love, or desire to marry. **Very small**, seldom or never experiences this feeling.

2. Philoprogenitiveness.

Parental attachment; love of one's offspring. **Very large**, is passionately fond of all children; a general favorite with them; idolizes his own children; is liable to overindulge them. **Large**, feels strong, tender parental love; is devotedly attached, and very kind to his own if not all children. **Full**, is tender, but not indulgent; fond of his own children, yet not partial to others. **Average**, loves his own children, yet not fondly; dislikes those of others. **Moderate**, loves his own children some, yet bears little from them. **Small**, feels little interest in even his own children. **Very small**, has no parental love; hates all children.



FIG. 4. THE PHRENOLOGICAL ORGANS SYMBOLICALLY ILLUSTRATED.

The above chart shows the location of the phrenological organs, and in the field of each organ its character is symbolically illustrated. Thus *Firmness* is indicated by the stability of the pyramid and the obstinacy of the mule, or the man who is contending with him; *Veneration*, by the attitude of prayer, and the courtesy of the boy toward old age; *Benevolence*, by the Good Samaritan; *Cautiousness*, by the frightened hen that fears detriment to her chicks; *Secretiveness*, by the fox; *Acquisitiveness*, by the miser, etc. These symbols are intended to make vivid the impression and thus help the memory.

3. Adhesiveness.

Friendship; social feeling; love of society. **Very large**, loves friends with indescribable tenderness and strength of feeling; will sacrifice almost everything upon the altar of friendship. **Large**, is eminently social; an ardent, sincere friend; enjoys friendly society extremely; forms strong if not hasty attachments. **Full**, is highly social, yet not remarkably warmhearted. **Average**, is quite friendly, yet will not sacrifice much for friends. **Moderate**, loves friends some, yet self more; quits friends often. **Small**, is unsocial, coldhearted; likes and is liked by few or none. **Very small**, is a stranger to friendly social feeling.

4. Conjugality.

Monogamy, union for life, first love, the pairing instinct. **Very large**, selects some one of the opposite sex as the sole object of love; concentrates the whole soul on the single one beloved, magnifying excellences and overlooking faults; longs to be always with that one; is exclusive, and requires a like exclusiveness; is true and faithful in wedlock, if married in spirit. **Large**, seeks one, and but one, sexual mate, and

* The numbers refer to Fig. 5.

feels perfectly satisfied in the society of that one. **Full,** can love cordially, yet is capable of changing the object. **Average,** is disposed to love but one for life, yet, with secretiveness and approbativeness large, and conscientiousness only full, is capable of coquetry. **Moderate,** is somewhat disposed to love only one, yet allows stronger faculties to interrupt that love. **Small,** has but little conjugal love and seeks the promiscuous society and affection of the opposite sex, rather than a single partner for life. **Very small,** manifests none of this faculty.

4. Inhabitiveness.

Love of home as such; attachment to the place where one has lived; unwillingness to change it; patriotism. **Very large,** regards home as the dearest, sweetest spot on earth; feels homesick when away; dislikes changing residences; is pre-eminently patriotic; thinks of his native place with intense interest. **Large,** soon becomes strongly attached to the place in which he lives; loves home and country dearly; leaves them reluctantly; is unhappy without a home of his own. **Full,** loves home well, yet does not grieve much on leaving it. **Average,** forms some, though not strong, local attachments. **Moderate,** has some, but not great, regard for home as such. **Small or very small,** makes any place home.

5. Concentrativeness.

Unity and continuity of thought and feeling; power of endure and concentrated application to one thing. **Very large,** places his mind upon subjects slowly; cannot leave them unfinished, nor attend to more than one thing at once; is very tedious; has great application, yet lacks intensity and point. **Large,** is able and inclined to apply his mind to one, and but one, subject for the time being, till it is finished; changes his mental operations with difficulty; is often prolix. **Full,** is disposed to attend to but one thing at once, yet can turn rapidly from thing to thing; is neither disconnected nor prolix. **Average,** possesses this power to some, though to no great, extent. **Moderate,** loves and indulges variety and change of thought, feeling, occupation, etc.; is not confused by them; rather lacks application; has intensity, but not unity, of the mental action. **Small,** craves novelty and variety; has little application; thinks and feels intensely, yet not long on anything; jumps rapidly from premise to conclusion; fails to connect and carry out his ideas. **Very small,** is satisfied only with constant succession.

E. Vitativeness.

Love of existence as such; dread of annihilation. **Very large,** however wretched, shrinks from and shudders at the thought of dying and being dead; feels that he cannot give up existence. **Large,** loves and clings tenaciously to existence for its own sake; craves immortality and dreads annihilation, even though miserable. **Full,** desires life, but not eagerly, from love of it and of pleasure. **Average,** is attached to life and fears death, yet not a great deal. **Moderate,** loves life, yet is not very anxious about living. **Small or very small,** heeds not life or death, existence or annihilation.

6. Combativeness.

Feeling of resistance, defence, opposition, boldness, willingness to encounter, courage, resentment, spirit. **Very large,** is powerful in opposition, prone to dispute, attack, etc.; contrary; has violent temper, governs it with difficulty. **Large,** is resolute and courageous, spirited and efficient as an opponent, quick and intrepid in resistance, loves debate, boldly meets, if he does not court, opposition. **Full,** seldom either courts or shrinks from opposition; when roused, is quite energetic; may be quick-tempered, yet is not contentious. **Average,** is pacific, but when driven to it, defends his rights boldly. **Moderate,** avoids collision; is rather pacific and inefficient. **Small,** has feeble resistance, temper, force, etc.; is cowardly. **Very small,** withstands nothing; is chicken-hearted, an arrant coward.

7. Destructiveness.

Executiveness, indignation, force, severity, sternness; a destroying, pain-causing disposition. **Very large,** when provoked, is vindictive, cruel, disposed to hurt, take revenge, etc.; bitter and implacable as an enemy; very forcible. **Large,** when excited, feels deep-toned indignation; is forcible, and disposed to subdue or destroy the cause of his displeasure. **Full,** can, but is loth to, cause or witness pain or death; has sufficient severity, yet requires considerable to call it out. **Average,** has not really deficient, yet none too much, indignation. **Moderate,** is mild, not severe or destructive enough; when angry, lacks power; can hardly cause or witness pain or death. **Small,** would hardly hurt one if he could, or could if he would; has so feeble anger that it is derided more than feared. **Very small,** is unable to cause, witness or endure pain or death.

8. Alimentiveness.

Appetite for sustenance; cause of hunger. **Very large,** sets too much by the indulgence of his palate; eats with the keenest appetite; perhaps "makes a god of his belly." **Large,** has an excellent appetite, a hearty relish for food, drink, etc.; enjoys them much; is a good liver; not dainty. **Full,** has a good appetite, yet can govern it; is not greedy. **Average,** enjoys food well, but not very well; hence is particular. **Moderate,** has not a good, nor very poor, but rather poor, appetite. **Small or very small,** is dainty, mincing, particular about food; eats with little relish.

9. Acquisitiveness.

Love of acquiring and possessing property as such; desire to save, lay up, etc.; innate feeling of mine and thine, of a right to possess and dispose of things. **Very large,** makes money his idol; grudges it; is tempted to get it dishonestly; penurious, sordid, covetous, etc. **Large,** has a strong desire to acquire property; is frugal, saving of money, close and particular in his dealings, devoted to money-making, trading, etc.; generally gets the value of his money. **Full,** values property, both for itself and what it procures, yet is not penurious; is industrious and saving, yet supplies his wants. **Average,** loves money, but not greatly; can make it, but spends freely. **Moderate,** finds it more difficult to keep than to make money; desires it more to supply wants than to lay up; is hardly saving enough. **Small,** will spend money injudiciously; lays up little; disregards the prices of things. **Very small,** cannot be taught the value or use of money.

10. Secretiveness.

Desire and ability to secrete, conceal, etc. **Very large,** seldom appears what he is, or says what he means; often equivocates and deceives; is mysterious, dark, cunning, artful, given to double-dealing, eye-service, etc. **Large,** seldom discloses his plans, opinions, etc.; is hard to be found out; reserved; non-committal. **Full,** can keep to himself what he wishes to, yet is not cunning. **Average,** is not artful nor very frank; is generally open; can conceal. **Moderate,** is quite candid and open-hearted; loves truth; dislikes concealment, underhand measures, etc.; seldom employs them. **Small,** speaks out just what he thinks; acts as he feels; does not wish to learn or tell the secrets of others, yet freely tells his own; is too plain-spoken and candid. **Very small,** has a transparent heart.

11. Cautiousness.

Carefulness; provision against danger. **Very large,** hesitates too much; suffers greatly from groundless fears; is timid, easily frightened, etc. **Large,** is always watchful; on the look-out; careful, anxious, solicitous; provident against real and imaginary danger, etc. **Full,** has prudence and forethought, yet not too much. **Average,** has some caution, yet hardly enough for success. **Moderate,** is rather imprudent, hence unlucky; liable to misfortunes caused by carelessness; plans too imperfectly for action. **Small,** acts impromptu; disregards consequences; fears nothing; is imprudent, luckless, often in hot water. **Very small,** is destitute of fear and forethought.

12. Approbativeness.

Sense of honor; regard for character; ambition; love of popularity, fame, distinction, etc. **Very large,** regards his honor and character as the apple of his eye; is even morbidly sensitive to praise and censure; over-fond of show, fashion, praise, style, etc.; extremely polite, ceremonious, etc. **Large,** sets everything by character, honor, etc.; is keenly alive to the frowns and smiles of public opinion, praise, etc.; tries to show off to good advantage; is affable, ambitious, apt to praise himself. **Full,** desires and seeks popularity and feels censure, yet will neither deny nor trouble himself to secure or avoid either. **Average,** enjoys approbation, yet will not sacrifice much to obtain it. **Moderate,** feels reproach some, yet is little affected by popularity or unpopularity; may gather the flowers of applause that are strewed in his path, yet will not deviate from it to collect them. **Small,** cares little for popular frowns or favors; feels little shame; disregards and despises fashions, etiquette, etc.; is not polite. **Very small,** cares nothing for popular favor.

13. Self-Esteem.

Self-respect; high-toned, manly feeling; innate love of personal liberty, independence, etc.; pride of character. **Very large,** has unbounded self-confidence; endures no restraint; takes no advice; is rather haughty, imperious, etc. **Large,** is high-minded, independent, self-confident, dignified, his own master; aspires to be and do something worthy of himself; assumes responsibilities; does few little things. **Full,** has much self-respect; pride of character; independence. **Average,** respects himself, yet is not haughty. **Moderate,** has some self-respect and manly feeling, yet too little to give ease, dignity, weight of character, etc.; is too trifling. **Small,** lets himself down; says and does trifling things; associates with inferiors; is not looked up to; lacks independence. **Very small,** is servile, low-minded, destitute of self-respect.

14. Firmness.

Decision, stability, fixedness of character, etc. **Very large,** is wilful, and so tenacious and unchangeable of opinion, purpose, etc., that he seldom gives up anything. **Large,** may be fully relied on; is set in his own way; hard to be convinced or changed at all; holds on long and hard. **Full,** has perseverance enough for ordinary occasions, yet too little for great enterprises; is neither fickle nor stubborn. **Average,** has some decision, yet too little for general success. **Moderate,** gives over too soon; changes too often and too easily; thus fails to effect what greater firmness would do. **Small or very small,** lacks perseverance; is too changeable to be relied upon.

15. Conscientiousness.

Innate feeling of duty, accountability, justice, right, etc.; moral principle; love of truth. **Very large,** is scrupulously exact in matters of right; perfectly honest in motive; always condemning self and repenting; makes duty everything, expediency nothing. **Large,** is honest; faithful; upright at heart; moral in feeling; grateful; penitent; means well; consults duty before expediency; loves, and means to speak, the truth; cannot tolerate wrong. **Full,** strives to do right, yet sometimes yields to temptation; resists besetting sins, but may be overcome, and then feels remorse. **Average,** has right intentions, but their influence is limited. **Moderate,** has considerable regard for duty in feeling, but less in practice; justifies himself; is not very penitent, grateful or forgiving; often temporizes with principle; sometimes lets interest rule duty. **Small,** has few conscientious scruples; little regard for moral principle, justice, duty, etc. **Very small,** does not feel the claims of duty or justice.

16. Hope.

Anticipation; expectation of future happiness, success, etc. **Very large,** has unbounded hopes; builds castles in the air. **Large,** expects, attempts and promises a great deal; is generally sanguine, cheerful, etc.; rises above present troubles; though disappointed, hopes on still; views the brightest side of prospects. **Full,** is quite sanguine, yet realizes about what he expects. **Average,** has some, but reasonable, hopes; is seldom elated. **Moderate,** expects and attempts too little; succeeds beyond his hopes; is prone to despond; looks on the darker side. **Small,** is low-spirited; easily discouraged; fears the worst; sees many lions in his way; magnifies evils; lacks enterprise. **Very small,** expects nothing good; has no hope of the future.

17. Spirituality.

Belief in the supernatural; credulity. **Very large,** is very superstitious; regards most things with wonder. **Large,** believes and delights in the supernatural, in dreams, ghosts, etc.; thinks many natural things supernatural. **Full,** is open to conviction; rather credulous; believes in divine providences, forewarnings, the wonderful, etc. **Average,** believes some, but not much, in wonders, forewarnings, etc. **Moderate,** believes but little that cannot be accounted for yet is open to

conviction; is incredulous, but listens to evidence. **Small,** is convinced only with difficulty; believes nothing till he sees facts, or why and wherefore, not even revelation farther than a reason is rendered; is prone to reject new things without examination. **Very small,** believes little else than his senses.

18. Veneration.

The feeling of worship for a Supreme Being; respect for religion and things sacred, and for superiors. **Very large,** is eminent, if not pre-eminent, for piety, heart-felt devotion, religious fervor, seriousness, love of divine things, etc. **Large,** loves to adore and worship God, especially through his works; treats equals with respect and superiors with deference. **Full,** is capable of much religious fervor and devotion, yet is not habitually serious; generally treats his fellow-men civilly. **Average,** may feel religious worship, yet little respect for men. **Moderate,** disregards religious creeds, forms of worship, etc.; places religion in other things; is not serious nor respectful. **Small,** feels little religious worship, reverence, respect, etc. **Very small,** seldom if ever adores God.

19. Benevolence.

Desire to see and make sentient beings happy; kindness. **Very large,** does all the good in his power; gladly sacrifices self upon the altar of pure benevolence; scatters happiness wherever he goes; is one of the kindest-hearted of persons. **Large,** is kind, obliging; glad to serve others, even to his injury; feels lively sympathy for distress; does good to all. **Full,** has a fair share of sympathetic feeling, and some, though not great, willingness to sacrifice for others. **Average,** has kind fellow-feeling without much active benevolence. **Moderate,** has some benevolent feeling, yet too little to prompt to much self-denial; does good only when he can without cost. **Small,** feels little kindness or sympathy; is almost deaf to the cries of distress; hard-hearted, selfish, etc. **Very small,** is destitute of all humanity and sympathy.

20. Constructiveness.

Mechanical dexterity and ingenuity; desire and ability to use tools, build, invent, employ machinery, etc. **Very large,** is a mechanic of the first order; a true genius. **Large,** shows great natural dexterity in using tools, executing mechanical operations, working machinery, etc.; loves them. **Full,** has fair mechanical ingenuity, yet no great natural talent or desire to make things; with practice will do well; without it, little. **Average,** has some, yet not great, relish for and tact in using tools. **Moderate,** with much practice, may use tools quite well, yet dislikes mechanical operations; owes more to art than nature. **Small,** hates, and is awkward and bungling in, using tools, etc. **Very small,** has no mechanical skill or desire.

21. Ideality.

Imagination; taste; fancy; love of perfection; poetry, polite literature, oratory, the beautiful in nature and art, etc. **Very large,** often gives rein to his erratic imagination; experiences revellings of fancy, ecstasy, rapture of feeling, enthusiasm. **Large,** has a lively imagination; great love of poetry, eloquence, fiction, good style, the beauties of nature and art. **Full,** has refinement of feeling, expression, etc., without sickly delicacy; some love of poetry, yet not a vivid imagination. **Average,** has some taste, though not enough to influence him much. **Moderate,** has some, but not much imagination; is rather plain in expression, manners, feeling, etc.; dislikes poetry, finery, etc. **Small,** or **very small,** lacks taste, niceness, refinement, delicacy of feeling, etc.

B. Sublimity.

Conception of grandeur; sublime emotions excited by contemplating the vast, magnificent or splendid in nature or art. **Very large,** is a passionate admirer of the wild and romantic; feels the sublimest emotions while contemplating the grand or awful in nature. **Large,** admires and enjoys scenery, a vast prospect, etc., exceedingly; hence, enjoys travelling. **Full,** enjoys magnificent scenes well, yet not remarkably so. **Average,** sometimes, but not to a great degree, experiences this feeling. **Moderate,** has some, though not at all vivid, emotions of this kind. **Small or very small,** discovers little to awaken this feeling.

22. Imitation.

Disposition and ability to take pattern, imitate. **Very large,** can mimic, act out and copy almost anything; describe, relate anecdotes, etc., to the very life; has a theatrical taste and talent; seldom speaks without gesturing. **Large,** has a great propensity and ability to copy, take pattern from others, do what he sees done, etc.; needs but one showing; gesticulates much; describes and acts out well. **Full,** with effort, copies some, but not well; cannot mimic. **Average,** copies some, yet too little to deserve or excite notice. **Moderate,** cannot mimic at all; can copy, draw, take pattern, etc., only with difficulty; describes, relates anecdotes, etc., poorly. **Small,** dislikes and fails to copy, draw, do after others, etc. **Very small,** has little ability to imitate or copy anything.

23. Mirthfulness.

Intuitive perception of the absurd and ridiculous; a joking, fun-making, ridiculing disposition and ability. **Very large,** is quick and apt at turning everything into ridicule, throws off constant sallies of wit; is too facetious, jocose, etc. **Large,** has a quick, keen perception of the ludicrous; makes a great amount of fun; too much for his own good; is quick at repartee; smiles often; laughs heartily at jokes. **Full,** has much mirthful feeling; makes and relishes jokes well. **Average,** perceives jokes, and relishes fun, but cannot make much. **Moderate,** has some witty ideas, yet lacks quickness in conceiving, and tact in expressing them; is generally quite sober. **Small,** makes little fun; is slow to perceive, and still slower to turn jokes; seldom laughs; thinks it wrong to do so. **Very small,** has few if any witty ideas or conceptions.

24. Individuality.

Observing and individualizing power and desire; curiosity to see and know; disposition to specify, personify. **Very large,** has an insatiable desire to see and know everything; extraordinary observing powers; is eager to witness every passing event. **Large,** has a great desire to know, investigate, examine, experience, etc.; is a great observer of men and things; quick of perception; sees what is transpiring, what should be done, etc.

Full, has fair observing powers, and desire to see things. **Average**, has some, yet no great, curiosity and desire to see things. **Moderate**, is rather deficient, yet not palpably so, in observing power and desire; not sufficiently specific. **Small**, is slow to see things; attends little to particulars. **Very small**, sees scarcely anything; regards things in the gross.

25. Form.

Cognizance and recollection of shape or configuration. **Very large**, never forgets the countenance, form, etc., of persons and things seen; easily learns to read and spell correctly; reads and sees things at a great distance; has excellent eyesight. **Large**, notices, and for a long time remembers, the faces, countenances, forms, looks, etc., of persons, beasts, things, etc., once seen; knows by sight many whom he may be unable to name. **Full**, recognizes persons, countenances, etc., well. **Average**, recollects forms, faces, etc., quite well, but not very well. **Moderate**, must see persons several times before he can recollect them; sometimes doubts whether he has seen certain persons. **Small or very small**, has a miserable memory of persons, looks, shapes, etc.; fails to recognize even those he sees often.

26. Size.

Cognizance and knowledge of relative magnitude, bulk, etc. **Very large**, detects disproportion, and judges of size, with wonderful accuracy, by intuition, and as well without as with instruments; cannot endure inaccuracy. **Large**, has an excellent eye for measuring proportion, size, height, angles, perpendiculars, etc.; quickly detects disproportions in them. **Full**, can measure ordinary and familiar distances well, yet shows no remarkable natural talent in it. **Average**, measures bulk with tolerable, though not great, accuracy. **Moderate**, is rather deficient in measuring by the eye; with practice, may do tolerably well in short, but fails in long, distances. **Small**, judges of relative size, etc., very inaccurately. **Very small**, can hardly distinguish mountains from molehills.

27. Weight.

Intuitive perception and application of the principles of specific gravity, projectile forces, momentum, balancing, resistance. **Very large**, has this power to a wonderful extent. **Large**, can walk on a high or narrow place; hold a steady hand, throw a stone or ball, and shoot, straight; ride a fractious horse, etc., very well. **Full**, keeps his centre of gravity well, but ventures little. **Average**, balances himself tolerably well in ordinary cases, yet has no great natural talent in this respect. **Moderate**, maintains his centre of gravity, etc., rather poorly. **Small or very small**, is unlike one with Weight large.

28. Color.

Perception and recollection of colors, hues, tints, etc. **Very large**, resembles one with Color large, but excels him. **Large**, has taste and talent for comparing, arranging, mingling, applying and recollecting colors; is delighted with paintings. **Full**, with practice, compares and judges of colors well; without it, does not excel. **Average**, can discern and recollect colors, yet seldom notices them. **Moderate**, aided by practice, can discern and compare colors, yet owes less to nature than art; seldom notices colors unless obliged to, and then soon forgets them. **Small**, seldom observes the color of one's hair, eyes, dress, etc.; cannot describe persons by what they wear, or compare colors apart; hardly distinguishes primary colors by candlelight. **Very small**, can tell white from black, but do little more.

29. Order.

System; physical arrangement; a place for things. **Very large**, is very precise and particular to have every little thing in its place; literally tormented by disorder; is fastidious. **Large**, has a place for things, and things in their places; can find, even in the dark, what he alone uses; is systematic; annoyed by disorder. **Full**, likes order; takes much pains to keep things arranged. **Average**, appreciates order, yet not enough to keep it. **Moderate**, likes but does not keep order; allows confusion. **Small or very small**, is nearly destitute of order.

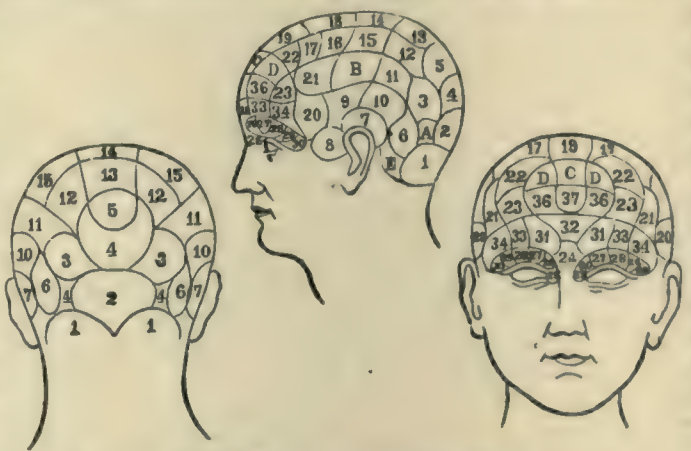


FIG. 5. THE PHRENOLOGICAL ORGANS, AS NUMBERED AND DESCRIBED.

30. Calculation.

Intuitive perception of the relations of numbers; ability to reckon figures in the head; numerical computation. **Very large**, has an intuitive faculty of reckoning even complicated sums of figures in his head; delights in it. **Large**, can add, subtract, divide, etc., in his head, with facility and correctness; become a rapid, correct accountant; delights and excels in arithmetic. **Full**, aided by rules and practice may excel in reckoning figures, and do well in his head, but not without them. **Average**, by practice and rules may reckon figures quite well. **Moderate**, does sums in his head rather slowly and inaccurately. **Small**, is dull and incorrect in adding, dividing, etc.; dislikes it. **Very small**, can hardly count.

31. Locality.

Cognizance and recollection of relative position, looks and geography of places, etc.; desire to travel, see the world, etc. **Very large**, never forgets the looks, location or geography of any place, or even thing, he has ever seen; is even passionately fond of travelling, scenery, geography, etc. **Large**, recollects distinctly the looks of places where he saw things, etc.; seldom loses himself, even in the dark; has a strong desire to

travel, see places, etc. **Full**, remembers places well, yet is liable to lose himself in a city or forest; ordinarily shows no deficiency; seldom loses himself. **Average**, has a fair, though not excellent, recollection of places. **Moderate**, recollects places rather poorly; sometimes gets lost. **Small or very small**, seldom observes where he goes, or finds his way back.

32. Eventuality.

Recollection of actions, phenomena, occurrences, what has taken place, circumstantial and historical facts. **Very large**, never forgets any occurrence, even though it is trifling; has a craving thirst for information and experiment; literally devours books, newspapers, etc.; commands an astonishing amount of information. **Large**, has a clear and retentive memory of historical facts, general news, what he has seen, heard, read, etc., even in detail. **Full**, recollects leading events, and interesting particulars, and has a good memory of occurrences, yet forgets less important details. **Average**, has neither a good nor bad memory of occurrences, etc. **Moderate**, recollects generals, not details; is rather forgetful. **Small**, has a treacherous, confused memory. **Very small**, forgets almost everything.

33. Time.

Cognizance and recollection of succession, the lapse of time, dates, how long ago things occurred, etc. **Very large**, remembers with wonderful accuracy the time of occurrences; is punctual; tells the time of day, etc., by intuition. **Large**, tells dates, appointments, ages, time of day, etc., well. **Full**, recollects about, but not precisely, when things occurred. **Average**, notices and remembers dates, times, etc., some, but not well. **Moderate**, has rather a poor idea of dates, the time when, etc. **Small**, can seldom tell when things took place; forgets dates. **Very small**, is liable to forget even his age.

34. Tune.

Tone; sense of melody and musical harmony; ability to learn tunes and detect chord and discord by ear; propensity to sing. **Very large**, learns tunes by hearing them sung once or twice; is literally enchanted by good music; shows intuitive skill, and spends much time in making it; sings from the heart, and with melting pathos. **Large**, easily catches tunes; learns to sing and play on instruments by rote; delights in singing; has a correct musical ear. **Full**, can learn tunes by ear well, yet needs help from notes. **Average**, likes music; with practice, may perform tolerably well. **Moderate**, aided by notes and practice, may sing, yet it will be mechanically; lacks that soul and feeling which reaches the heart. **Small**, learns to sing or play tunes either by note or rote with great difficulty; sings mechanically, and without emotion or effect. **Very small**, can hardly discern one tune or note from another.

35. Language.

Power of expressing ideas, feelings, etc., by means of words; ability to talk. **Very large**, has, by nature, astonishing command of words, copiousness and eloquence of expression, and verbal memory; quotes with ease; is an incessant talker; has too many words. **Large**, is a free, easy, ready, fluent talker and speaker; uses good language; commits easily; seldom hesitates for words. **Full**, commands a fair share of words, yet uses familiar expressions; is neither fluent nor the reverse; when excited, expresses himself freely, yet not copiously. **Average**, can communicate his ideas tolerably well, yet finds some difficulty; uses common words; can write better than speak. **Moderate**, often hesitates for words; employs too few; may write well, and be a critical linguist, but cannot be an easy, fluent speaker. **Small**, employs few words, and those commonplace; in speaking, hesitates much; is barren in expression; commits slowly. **Very small**, can hardly remember or use words.

36. Causality.

Cognizance of the relations of cause and effect; ability to apply them, or to adapt means to ends; power of reasoning, etc. **Very large**, is endowed with a deep, strong, original, comprehensive mind, powerful reasoning faculties, great vigor and energy of thought, first-rate judgment, and a gigantic intellect. **Large**, plans well; can think clearly and closely; is always enquiring into the why and the wherefore, the causes and explanation of things; always gives and requires the reason; has by nature excellent judgment, good ideas, a strong mind, etc. **Full**, adapts means to ends well; has an active desire to ascertain causes, yet not a deep, original, cause-discovering and applying mind. **Average**, has some, but not great, ability to plan and reason. **Moderate**, is rather slow of comprehension; deficient in adapting means to ends; has not good ideas or judgment. **Small**, has a weak, imbecile mind; cannot contrive or think. **Very small**, little idea of causation; is a natural fool.

37. Comparison.

Perception of analogies, resemblances, differences; ability to compare, illustrate, criticise, classify, generalize, etc. **Very large**, is endowed with an extraordinary amount of critical acumen, analytical, comparing and illustrating power. **Large**, has a happy talent for comparing, illustrating, criticising, arguing from similar cases, discriminating between what is and is not analogous or in point, classifying phenomena, and thereby ascertaining their laws, etc. **Full**, illustrates, discriminates, etc., well, but not remarkably so. **Average**, perceives striking analogies; illustrates tolerably well. **Moderate**, may discern obvious similarities, yet overlooks others. **Small or very small**, is almost destitute of this power.

C. Human Nature.

Discernment of character and perception of motive. **Large or very large**, perceives, as if by intuition, the character and motives of men from their physiognomy, conversation, etc.; is suspicious, and seldom deceived; naturally understands human nature. **Moderate or small**, seldom suspects others; is easily imposed upon, learns human nature slowly; does not know well how to take men.

D. Suavity.

Ability to render oneself agreeable; pleasantness. **Large or very large**, readily wins confidence and affection, even of enemies; can say and do hard things without creating difficulty; obtain favors; get along well; so say and do things that they take. **Average or full**, neither excels nor is deficient in this respect. **Moderate or small**, is deficient in the power described; says pleasant things unpleasantly, and does not succeed in winning people's good graces.

STATISTICAL DEPARTMENT.

A DICTIONARY OF FACTS AND FIGURES.

Over One Hundred Thousand Important References, arranged in Alphabetical Order, and Illustrated with Original Diagrams on the New Plan of Object-Teaching.

TRUE statistics are the record of industrial history. He who cannot read what is written between their lines, or interwoven in their columns, may rest content with the narrative of wars and dynasties, or of political changes, and may imagine that he knows the true history of events. But can he tell how the people lived and moved—how wars and dynasties have been sustained? If he cannot, let him study what figures can teach to any one who knows how to master them—the industrial history of free nations. The battle is not to the heaviest battalions, but to the people who can sustain the battalions longest. It is the commissary-general who wins, for without him the master of the ordnance would be powerless. In the battle of life it is the same. If there were no prophecy of the future in the statistics of the past and present there would be no meaning to the computations, and the disclosures of the census would be without value.

It is not the province of the HOME LIBRARY to advance new theories in political economy, or to discuss theories already put forth, but it has been the endeavor of the editor to present in small compass, in compact, accessible and attractive form, a vast amount of valuable information, gathered from the most reliable sources. The wealth and resources of States and Nations, population, religion, commerce, labor and capital, and all important subjects of discussion, are treated fully in their proper place, while subjects of minor importance, though often of equal interest, have not been neglected. In short, the object of the following *Dictionary of Facts and Figures* is to afford ready reference on subjects of statistical interest.

ACQUISITION OF TERRITORY.—The increase in area of the United States, by war and treaty, is shown in the annexed table:

When.	How.	Whence.	What.	Sq. Miles.
1776 } 1783 }	By war	England	The thirteen original States *a*	820,680
1803	By treaty	France	Louisiana *b*	899,579
1819	By treaty	Spain	Florida *c*	66,000
1845	By union	Mexico	Texas *d*	318,000
1846	By treaty	England	Oregon	308,052
1846 } 1848 }	By war	Mexico	California & New Mexico *e*	522,955
1853	By treaty	Mexico	Gadsden Purchase *f*	45,535
1867	By treaty	Russia	Alaska *g*	577,390
				3,550,091

a Estimated cost of War of Independence, $168,000,000.
b Purchased for $15,000,000. *c* Cost $3,000,000.
d Debt of Texas on admission into the Union, $7,500,000.
e Estimated cost of the Mexican War, $15,000,000.
f Cost $10,000,000. *g* Cost $7,200,000.

AGE.—A man's working life is divided into four decades: 20 to 30, bronze; 30 to 40, silver; 40 to 50, gold; 50 to 60, iron. Intellect and judgment are strongest between 40 and 50. The percentages of population to age in various countries are shown thus:

Country.	Percentage of Population.			Average age of all living Years.
	Under 20 Years.	From 20 to 60	Over 60.	
United States	50	45	5	24.9
England	46	47	7	27.1
Scotland	46	45	9	27.4
Ireland	46	43	11	28.6
France	36	52	12	32.2
Germany	43	49	8	28.0
Italy	44	49	7	27.6
Austria	43	50	7	27.7
Greece	48	47	5	25.5
Spain	42	52	6	27.2
Brazil	46	45	9	27.3
Belgium	40	50	10	29.7
Holland	43	49	8	28.3
Denmark	42	50	8	28.4
Sweden	43	49	8	28.0
Norway	43	48	9	28.0

The Americans are the youngest, the French the oldest.

AIR.—In its pure state air is composed thus: Nitrogen, 77; oxygen, 21; other components, 2; total, 100.

The *percentage of oxygen* varies as follows: Sea-shore, 21.00; confined houses, 20.75; mines, 20.50; when candles go out, 18.50.

The *percentage of carbonic acid* ranges thus: In country, .03; in town, .04; in hospitals, .05; in fogs, .07; in crowded lanes, 13; in theaters, 30.

Each adult inhales a gallon of air per minute, and consumes daily 30 oz. of oxygen. For the conversion of this oxygen a certain amount of food is required—say 13 oz. of carbon for a male, and 11 oz. for a female, equivalent to 3 lbs. bread and 2½ lbs. respectively.

ALCOHOL.—The degrees in wines and liquors are: Beer, 4.0; porter, 4.5; ale, 7.4; cider, 8.6; perry, 8.8; elder, 9.3; Moselle, 9.6; Tokay, 10.2; Rhine, 11.0; Orange, 11.2; Bordeaux, 11.5; hock, 11.6; gooseberry, 11.8; champagne, 12.2; claret, 13.3; Burgundy, 13.6; Malaga, 17.3; Lisbon, 18.5; Canary, 18.8; sherry, 19.0; Vermouth, 19.0; Cape, 19.2; Malmsey, 19.7; Marsala, 20.2; Madeira, 21.0; port, 23.2; curacoa, 27.0; aniseed, 33.0; Maraschino, 34.0; Chartreuse, 43.0; gin, 51.6; brandy, 53.4; rum, 53.7; Irish whisky, 53.9; Scotch, 54.3.

Spirits are said to be "proof" when they contain 57 per cent. The maximum amount of alcohol, says Parkes, that a man can take daily without injury to his health is that contained in 2 oz. brandy, ¼ pt. of sherry, ½ pt. of claret, or 1 pt. of beer.

ALCOHOLIC LIQUORS.—A table of the comparative consumption of alcoholic liquors was compiled by the London *Times* recently, with some interesting results. The average yearly consumption per head is given in liters (a liter is a little less than a quart):

	Spirits. Liters.	Wine. Liters.	Beer. Liters.
Canada	3.08	0.29	8.51
Norway	3.90	1.00	15.30
United States	4.79	2.64	31.30
Great Britain and Ireland	5.37	2.09	143.92
Austria-Hungary	5.76	22.40	28.42
France	7.28	119.20	21.10
Russia	8.08	Unknown.	4.65
Sweden	8.14	0.36	11.00
German Zollverein	8.60	6.00	65.00
Belgium	9.20	3.70	169.20
Switzerland	15.30	55.00	37.50
Netherlands	9.87	2.57	27.00
Denmark	18.90	1.00	33.33

Belgium, it seems, contains the greatest number of beer-drinkers, with Great Britain second in this list, and Germany, contrary to common opinion, only third. France drinks the most wine, and Switzerland comes next, while the amount accredited to the United States, though comparatively small, yet exceeds that of Great Britain. Canada is the most moderate drinker of all.

ANIMALS.

	Weight (lbs).	Years of Life.		Weight (lbs).	Years of Life.
Rabbit	2	5	Cow	750	25
Dog	10	12	Ox	900	25
Sheep	70	12	Horse	1,000	27
Pig	160	10	Camel	1,200	40
Lion	500	40	Elephant	6,000	100

AQUEDUCTS.—Among modern works the most famous are:

	Length. Miles.	Million gal's daily.	Cost.
Croton (New York)	41	88	$ 9,000,000
Madrid	47	40	11,500,000
Marseilles	51	60	2,250,000
Glasgow	34	50	7,775,000
Washington	16	90	

Rome, in the time of the Cæsars, had nine aqueducts, measuring 249 miles in the aggregate, and with a daily capacity of 320,000,000 gallons, or 200 gallons per inhabitant. The great aqueduct of Peru, built by the Incas, was 360 miles long.

ARMY.—*Proportions.*—According to Napoleon the proportions of an army should be 70 per cent infantry, 17 per cent cavalry, and 13 per cent between artillery, engineers and train.

Death rate.—In active service the death rate among officers is heavier than among the rank and file. The Duke of Wellington's army roll from 1811 to 1814 showed the following percentage:

	Officers.	Men.
Killed	14.5	10.2
Wounded	81.0	49.0
Died of Disease	13.0	38.0

Able-bodied.—The percentage of men capable of bearing arms in various countries is as follows: England, 23; Scotland, 22; Ireland, 22; France, 27; Austria, 25; Germany, 24; Italy, 25; Belgium, 25; Holland, 25; Spain, 26; Denmark, 25; Sweden, 25; Norway, 24; United States, 23; Greece, 23.

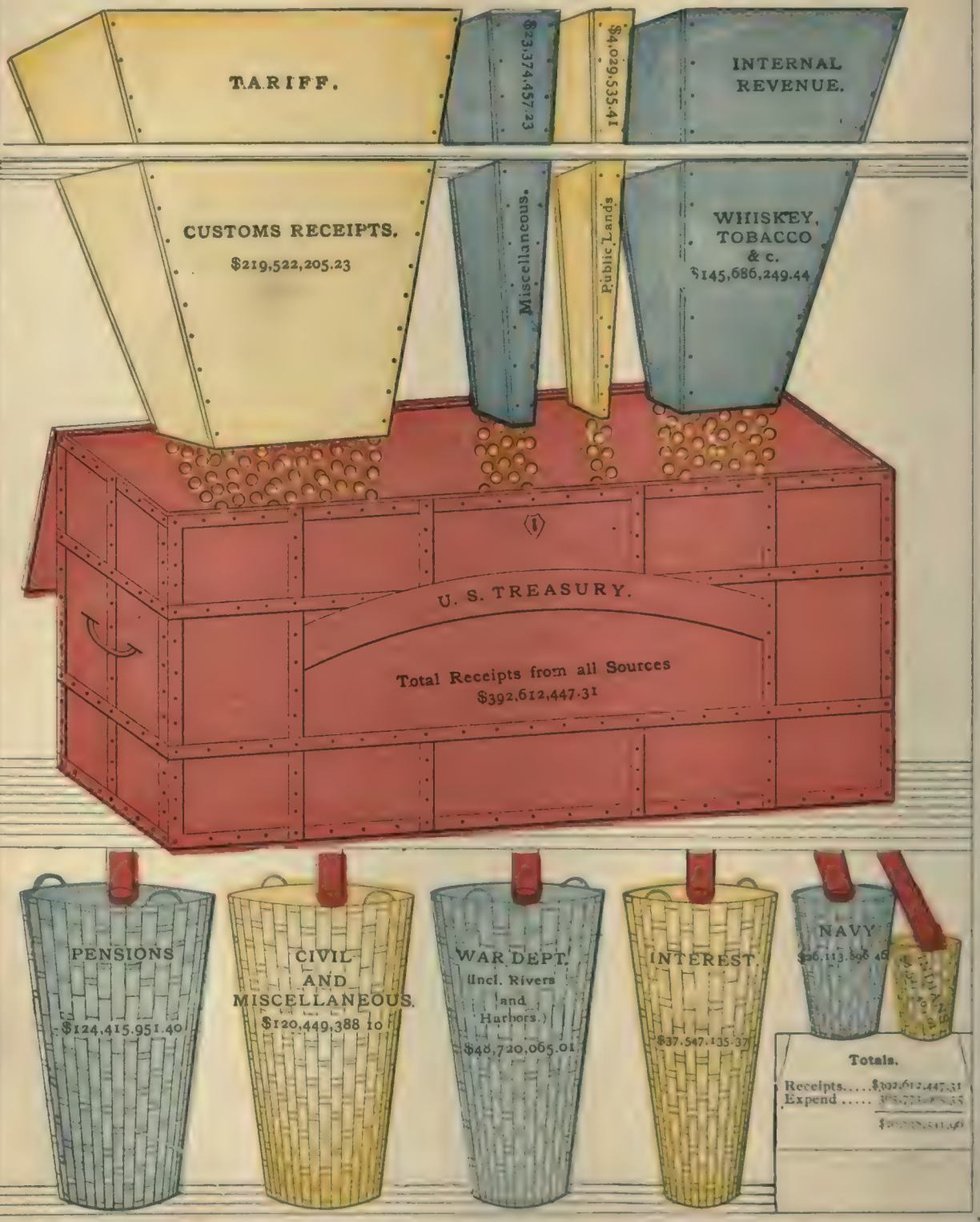
See diagram *Military and Naval Strength*, page 335.

ARTILLERY.—At the close of the Franco-German war the Germans took from the French 7,234 pieces of cannon, including 3,485 field pieces and 3,300 fortress guns. At the battle of Waterloo the British artillery fired 9,467 rounds, or one for every Frenchman killed. See *Ordnance*.

AUTHORS.—Goldsmith received $300 for the "Vicar of Wakefield;" Moore, $15,500 for "Lalla Rookh;" Victor Hugo, $12,000 for "Hernani;" Chateaubriand, $110,000 for his works; Lamartine, $16,000 for "Travels in Palestine;" Disraeli, $50,000 for "Endymion;" Anthony Trollope, $315,000 for forty-five novels; Lingard, $21,500 for his "History of England."

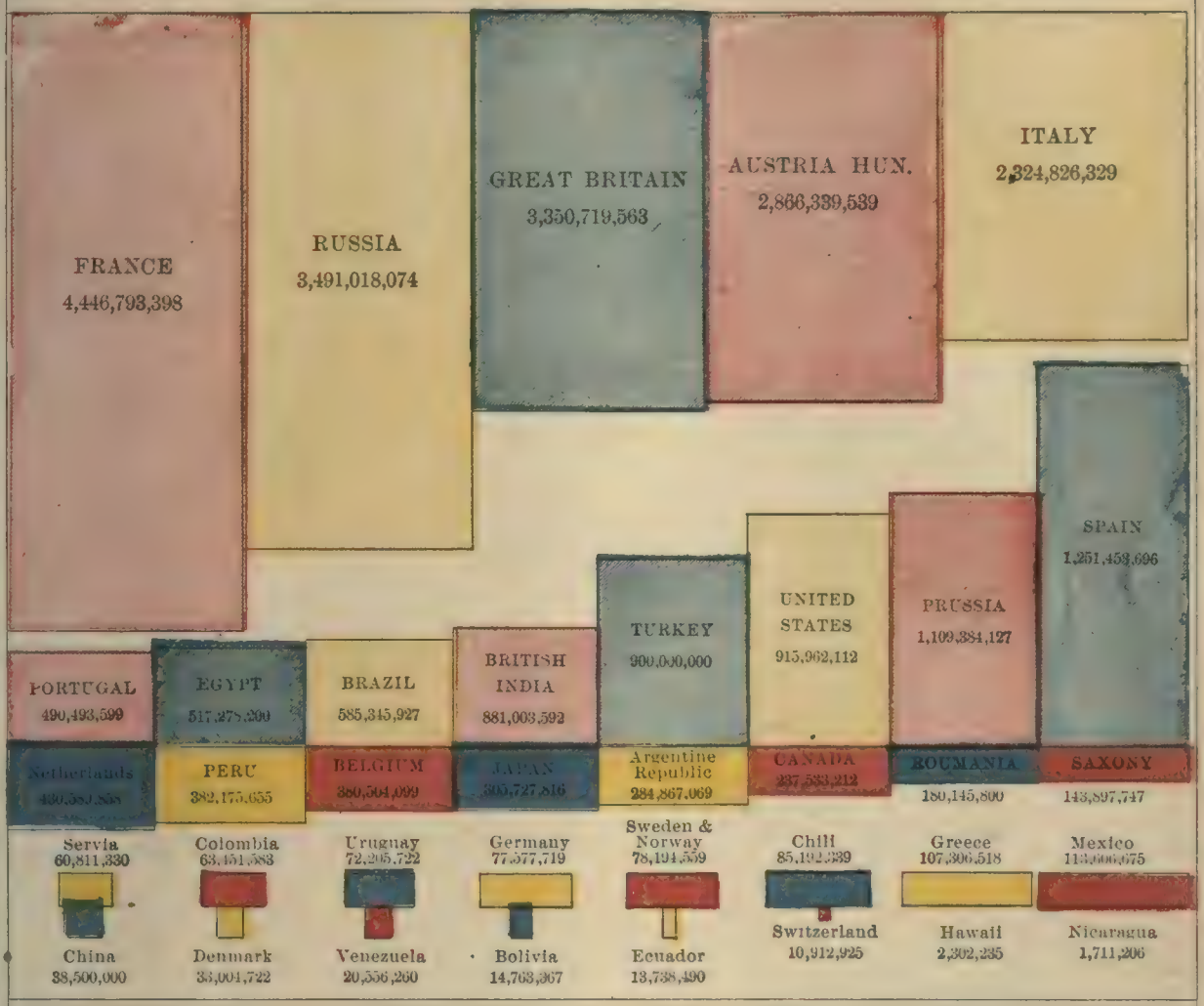
Receipts and Expenditures United States Government.

For the fiscal year 1891.



PUBLIC DEBTS OF VARIOUS COUNTRIES. 1891.

UNIT OF SCALE $ 2.475.000.



STATE DEBTS, UNITED STATES.

UNIT OF SCALE $ 51.675.

Oregon	$ 2,337	Arizona	$ 757,158	New York	$ 2,308,229	Massachusetts	$ 7,267,349
Vermont	148,416	South Dakota	860,200	California	2,527,624	North Carolina	7,703,100
West Virginia	184,511	New Mexico	870,961	New Hampshire	2,691,019	Maryland	8,434,368
Idaho	240,128	Delaware	887,583	Maine	3,470,908	Indiana	8,540,615
Iowa	245,435	New Jersey	1,022,642	Mississippi	3,503,008	Arkansas	8,671,782
Nebraska	253,879	Florida	1,032,500	Connecticut	3,740,200	Georgia	10,449,542
Washington	300,000	Kansas	1,119,791	Pennsylvania	4,090,792	Missouri	11,759,832
Wyoming	320,000	Illinois	1,184,907	Texas	4,317,514	Alabama	12,413,196
Rhode Island	422,984	Kentucky	1,671,133	Michigan	5,308,294	Louisiana	16,008,585
Nevada	509,526	Wisconsin	2,295,390	South Carolina	6,566,849	Tennessee	17,492,474
Colorado	599,851	Minnesota	2,239,482	Ohio	7,135,805	D. of Columbia	19,781,050
North Dakota	689,807					Virginia	31,067,137

BENEDICT & CO., ENGR'S CHICAGO.

BALLOONS.—The most remarkable ascents on record:

Date.	Aeronaut.	Place of Ascent.	Height. Yards.	Distance. Miles.
1783.....	Montgolfier.....	Lyons	2,000	....
1804.....	Gay Lussac	Paris	7,700	....
1836.....	Holland	London.....	.....	500
1859.....	Wise.....	New York	.....	1,150
1862.....	Glaisher.....	Wolverhampton....	12,000	....

During the siege of Paris—September, 1870, to February, 1871—there were 64 balloons sent up, containing 91 passengers, 354 pigeons, and 3,000,000 letters (weighing 9 tons).

Mr. Glaisher states that in 3,500 balloon ascents only 15 deaths have occurred, that is, about four per thousand.

BANKING.—The capital employed in banking in the principal countries is as follows: Great Britain, $4,020,000,000; United States, $2,655,000,000; Germany, $1,425,000,000; France, $1,025,000,000; Austria, $830,000,000; Russia, $775,000,000; Italy, $455,000,000; Australia, $425,000,000; Canada, $175,000,000.

On Sept. 1, 1891, there were 3,577 *national banks* in the U. S., with a capital of $660,108,261, and a surplus of $222,766,668. The dividends for one year aggregated $50,795,011 and total net earnings for same time, $75,763,614.

Since 1840 the banking of the world has increased about eleven-fold, that is, three times as fast as commerce, or thirty times faster than population.

BAROMETER.—The mean height of barometer varies according to latitude as follows:

Degree of Latitude.	Barometer.	Degree of Latitude.	Barometer.
10	29.98	45	30.00
20	30.06	50	29.81
30	30.11	60	29.80
40	30.02	67	29.67

It varies according to elevation as follows:

	Feet above Sea.	Mean Barometer.		Feet above Sea.	Mean Barometer.
Sea level....	0	30.00	Madrid	1,995	27.72
Rome.....	151	29.76	St. Rémy..	5,265	24.45
Milan.....	420	29.45	St. Gothard	6,808	23.07
Moscow	984	28.82	Mexico	7,471	22.52
Geneva	1,221	28.54	Bogota	8,731	21.42
Munich.....	1,765	27.95	Quito.....	9,541	20.75

Mr. Glaisher's barometer in his various balloon ascents marked as follows: At a height of 1 mile, 24.7 in.; 2 miles, 20.3 in.; 3 miles, 16.7 in.; 4 miles, 13.7; 5 miles, 11.3.

BARRENNESS.—One woman in 20, one man in 30—about 4 per cent. It is found that one marriage in 20 is barren—5 per cent. Among the nobility of Great Britain, 21 per cent have no children, owing partly to intermarriage of cousins, no less than 4½ per cent being married to cousins.

BATTLES.—The numbers placed *hors-de-combat* are not relatively so large as formerly, as the table below will show:

	Men Engaged.	Hors-de-combat.	Ratio.
Thrasymene	65,000	17,000	27 per cent.
Cannæ.....	146,000	52,000	34 "
Bannockburn	135,000	38,000	28 "
Agincourt.....	62,000	11,400	18 "
Crecy.....	117,000	31,200	27 "
Marengo.....	58,000	13,000	22 "
Austerlitz	170,000	23,000	13 "
Borodino	250,000	78,000	31 "
Waterloo	145,000	51,000	35 "
Alma.....	103,000	8,400	8 "
Sadowa.....	400,000	33,000	8 "
Gravelotte.....	320,000	48,500	15 "
Gettysburg	140,000	8,000	5 "

See also diagram, page 335.

BAYS.—Length in miles (approximate): Hudson's, about 1,200; Baffin's, about 600; Chesapeake, about 250.

BEER.—See *Alcoholic Liquors*. See also diagram, *Beer Production*.

BEES — The largest bee-owner in the world is said to be Mr. Harbison, of California, who had 6,000 hives, producing 200,000 lbs. honey yearly, worth $40,000. There are in the United States 70,000 bee-growers, but the average which they get from their hives is only 22 lbs., whereas the average in England is 50 lbs., and some hives have given as high as 120 lbs. A hive consists of about 5,000 bees, and will multiply ten-fold in five years. Bees eat 20 lbs. of honey in making a pound of wax.

BELLS.—The largest bells are the following, and their weight is given in tons: Moscow, 202; Burmah, 117; Pekin, 53; Novgorod, 31; Notre Dame, 18; Rouen, 18; Olmutz, 18; Vienna, 18; St. Paul's, 16; Westminster, 14; Montreal, 12; Cologne, 11; Oxford, 8; St. Peter's, 8.

Bell-metal should have 77 parts copper, and 23 tin.

BIBLE.—No fewer than 1,326 editions of the Bible were published in the sixteenth century. In the seventeenth and eighteenth centuries it was translated and published in many languages by the polyglot press of Propaganda Fide at Rome. In the nineteenth century the English and American societies have printed, in the Protestant version, 124,000,000 copies of the Bible or of the New Testament, viz.: British, 74,000,000; American, 32,000,000; other societies, 15,000,000 copies.

The King James version of the Bible contains 3,566,480 letters, 773,746 words, 31,173 verses, 1,189 chapters, and 66 books. The word *and* occurs 46,277 times. The word *Lord* occurs 1,855 times. The word *Reverend* occurs but once, which is in the 9th verse of the 111th Psalm. The middle verse is the 8th verse of the 118th Psalm. The 21st verse of the 7th chapter of Ezra contains all the letters of the alphabet except the letter J. The 19th chapter of II Kings and the 37th chapter of Isaiah are alike. The longest verse is the 9th verse of the 8th chapter of Esther. The shortest verse is the 35th verse of the 11th chapter of St. John. There are no words or names of more than six syllables.

BICYCLE.—The bicycle stands fifth as regards the time taken to cover a mile. The following table gives the various ways of going a mile, and the least time required:

	Min.	Sec.		Min.	Sec.
Locomotive.....		30 4-5	Running man.....	4	12 3-4
Running horse.....	1	35 1-2	Rowing	5	01
Trotting horse	2	08 1-4	Snow-shoes.....	5	39 3-4
Bicycle	2	15	Walking	6	23
Skating.....	2	12	Swimming	12	42 1-4
Tricycle	2	31 2-3			

BIRDS.—A hawk flies 150 miles per hour; an eider duck, 90 miles; a pigeon, 40 miles. See *Carrier-Pigeons*.

BLIND.—The number of blind in the United States in 1880 was 48,930, or at the rate of 97 per 100,000 population. The ratio of sexes was 55 male to 45 female.

BLOOD.—The human heart beats 74 times a minute, sending each time 10 lbs. of blood through the veins and arteries. The system of an adult averages 28 lbs. of blood. The elements of human blood are as follows:

	Man.	Woman.
Water	77.8	79.6
Albumen	6.2	6.4
Color	14.1	12.2
Saline, etc.	1.9	1.8
	100.0	100.0

The amount of iron in human blood and that of some animals is as follows: Man, 0.91 oz. per cwt.; ox, 1 oz.; pig, 1.06 oz.; frog, 0.75 oz.

BOOKS.—The terms *folio*, *quarto*, *octavo*, etc., indicate the *number of leaves* into which a sheet of paper is folded in making a book, and the number of pages in each sheet is termed a *signature;* and for convenience in use the signatures in books are numbered by figures placed at the bottom of the first page of the signature. A *folio* book or paper is made of sheets folded in 2 leaves; a *quarto* (or 4to) of sheets folded into 4 leaves; an *octavo*, 8 leaves; *duodecimo* (12mo), 12 leaves; *18mo*, in 18 leaves; a *24mo*, in 24 leaves; a *32mo*, in 32 leaves, etc.

About 100 new works are published daily, or 30,000 per annum, without taking into account new editions of old books. The annual average of new books from 1878 to 1880 was as follows: Great Britain, 5,771; France, 7,000; Germany, 14,560; United States, nearly 3,000. The number for the United States in 1883 had risen to 3,481, and in 1890 over 4,500 new works were issued.

In the year 690 the Duke of Northumberland gave 800 acres of land for one volume of history. Later on a pious farmer sold two loads of hay on Cornhill for a copy of the Epistle of Jude, an epistle containing only twenty-five verses. A devout countess of this same age gave 200 sheep and a large parcel of rich furs for a volume of sermons. In the year 1420, when London Bridge was building, a Latin Bible cost $120, which was more than it cost to build two arches of London Bridge. A laboring man only earned three cents a day in that time, and it would have taken the earnings of fifteen years for him to have bought a Bible. This will explain, in part, how it was that Bibles were chained up in churches.

A good, steady reader will not be able to read more than thirty pages of an average 12mo book in an hour. Now let us suppose the case of such a reader; let him read eight hours a day, six days a week, all the year round. He will read 240 pages a day, 1,440 pages a week, making an average of three good-sized volumes of 480 pages a week, or 150 volumes per annum. But there are over 30,000 volumes published per annum, so that the publishers get ahead of this reader at the rate of over 30,000 books every year. In the course of a quarter of a century, this diligent reader, if he never fails a day, is never sick, never takes a vacation, will have read only 3,750 volumes. Of course this illustration is exaggerated. No man could read at this rate without becoming raving mad before the end of the first year. These figures serve to show that a wise man must be content to leave a great deal unread. When we hear men described as bookworms, and others boasting of being well read, we may well smile as we think how little the worm has been able to accomplish, and how much the well-read man has left unread. The difficulty which this great wealth of literature presents can only be wisely met in one way. We must be content to read only a little, but if our reading is not to degenerate into the merest idleness, we must be careful that the little we read is worth the time we give it. A man who will read and master a dozen good books a year, will, in a few years, be a well informed, educated man; but the man who rushes through a great number of books for mere pastime will add about as much to his mental wealth as if he had been pouring water through a sieve.

BRAIN.—The latest classification of races, according to Bastian and other experts, shows weight of brain, in ounces, as follows: Scotch, 50.0; Germans, 49.6; English, 49.5; French, 47.9; Zulus, 47.5; Chinese, 47.2; Pawnees, 47.1; Italians, 46.9; Hindoo, 45.1; Gypsy, 44.8; Bushmen, 44.6; Esquimaux, 43.9. Compared with size of body, the brain of the Esquimaux is as heavy as the Scotchman's

The measurement of that part of the skull which holds the brain is stated in cubic inches thus: Anglo-Saxon, 105; German, 105; Negro, 96; Ancient Egyptian, 93; Hottentot, 58; Australian native, 58.

In all races the male brain is about 10 per cent heavier than the female. The highest class of apes has only 16 oz. of brain.

A man's brain, it is estimated, consists of 300,000,000 nerve cells, of which over 3,000 are disintegrated and destroyed every minute. Every one, therefore, has a new brain once in sixty days. But excessive labor, or the lack of sleep, prevents the repair of the tissues, and the brain gradually wastes away. Diversity of occupation, by calling upon different portions of the mind or body, successively affords, in some measure, the requisite repose to each. But in this age of overwork there is no safety except in that perfect rest which is the only natural restorative of exhausted power. It has been noticed by observant physicians in their European travels that the German people, who, as a rule, have no ambition and no hope to rise above their inherited station, are peculiarly free from nervous diseases; but in America, where the struggle for advancement is sharp and incessant, and there is nothing that will stop an American but death, the period of life is usually shortened five, ten, or twenty years by the effects of nervous exhaustion.

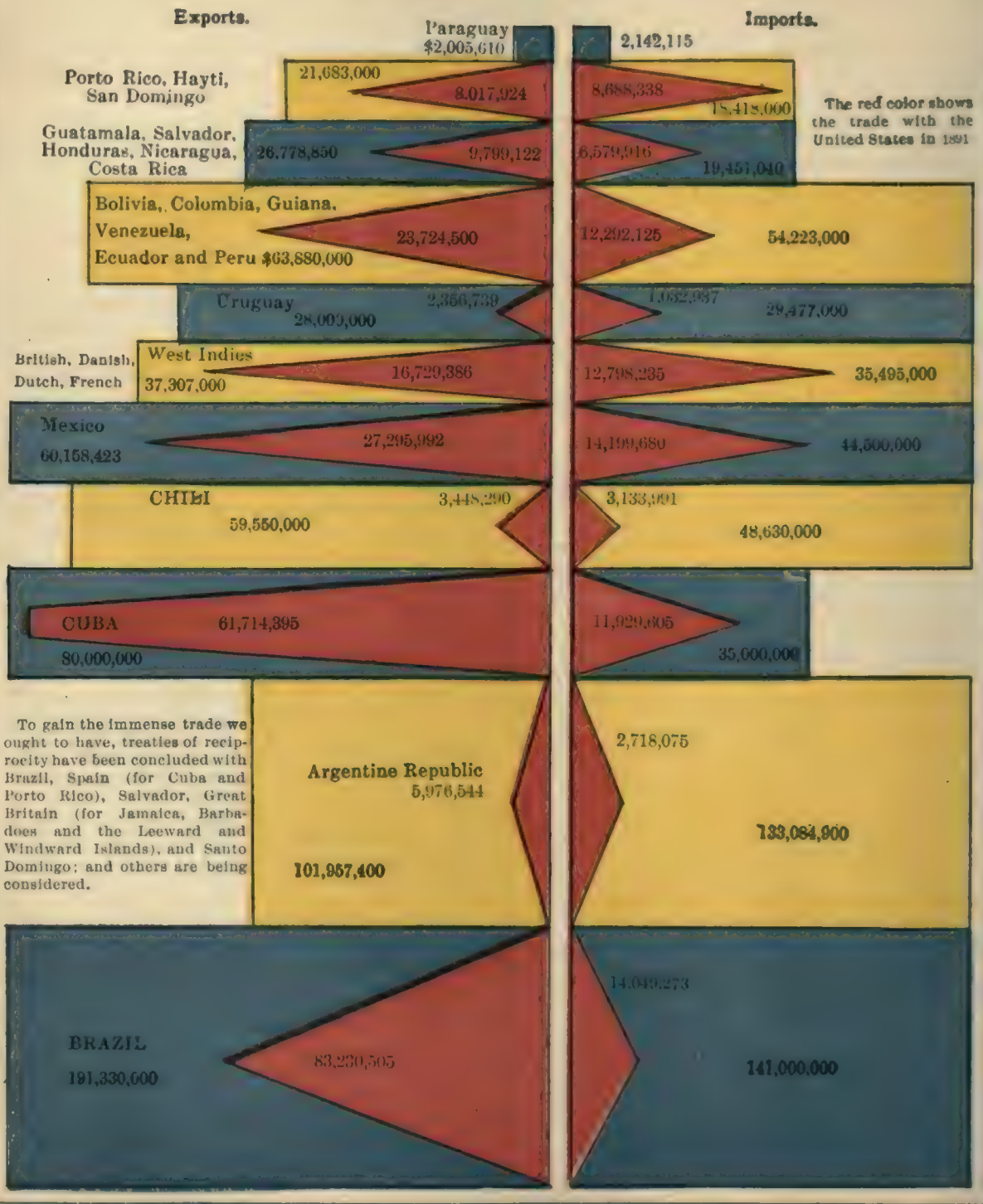
After the age of 50 the brain loses an ounce every ten years. Cuvier's weighed 64, Byron's 79, and Cromwell's 90 ounces, but the last was diseased. Post-mortem examinations in France give an average of 55 to 60 ounces for the brains of the worst class of criminals.

BRIDGES.—The great bridges of the world are as follows:

Location.	Material.	Character.	Total Length. (Feet.)	Longest Span. (Feet.)
Brooklyn, N. Y.	Steel	Suspension	5,989	1,595
Poughkeepsie, N. Y.	Iron	Truss	4,595	525
Omaha, Neb	Iron	Post truss	2,750	250
Cincinnati, O.	Iron	Suspension	2,220	1,057
St. Louis, Mo.	Steel	Segmental arch	1,550	520
Pittsburgh, Pa.	Iron	Suspension	1,245	800
Leavenworth, Kas.	Iron	Post truss	1,000	340
New Niagara, N. Y.	Iron	Suspension	.....	1,229
Britannia, Menai Strait.	Iron	Tubular	1,378	459
Victoria, Montreal, Can	Iron	Tubular	6,538	330
Fribourg, Switzerland.	Iron	Suspension	.....	889
Waterloo, London, Eng	Stone	Elliptical arch	.....	120

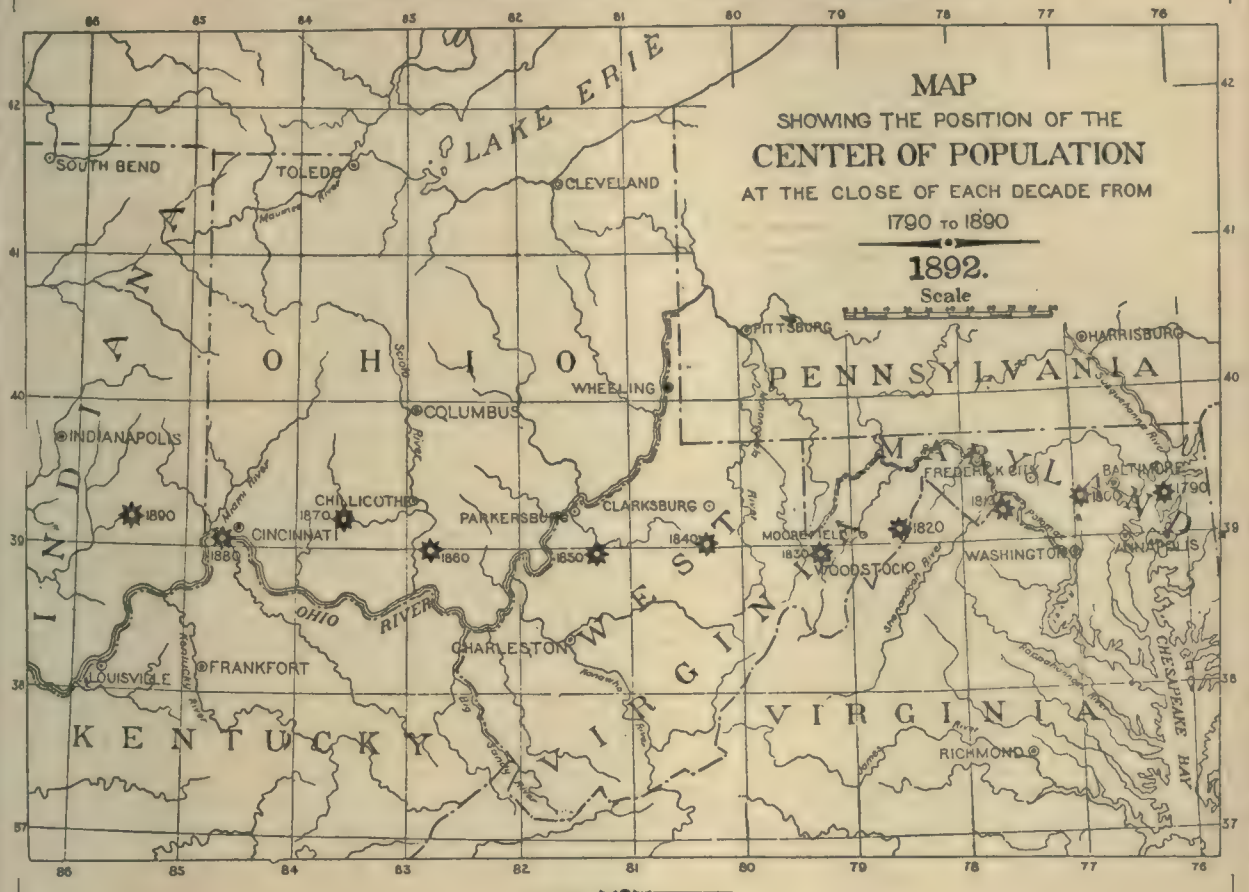
UNITED STATES COMMERCE WITH LATIN AMERICA.

Value of One Year's Trade in Dollars.



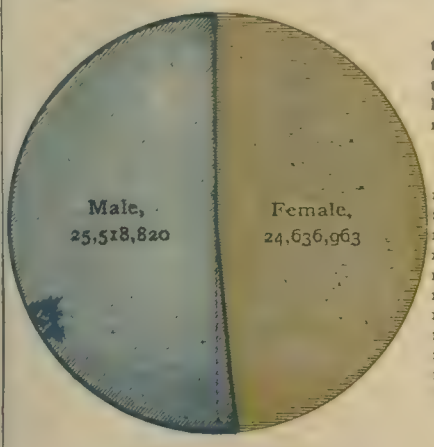
To gain the immense trade we ought to have, treaties of reciprocity have been concluded with Brazil, Spain (for Cuba and Porto Rico), Salvador, Great Britain (for Jamaica, Barbadoes and the Leeward and Windward Islands), and Santo Domingo; and others are being considered.

CURIOSITIES OF THE CENSUS.



THE CENTRE OF POPULATION.

The centre of population is defined as "the point at which equilibrium would be reached were the country taken as a plane surface itself, without weight, but capable of sustaining weight, and loaded with its inhabitants in number and position as they are found at the period under consideration, each individual being assumed to be of the same gravity as every other, and consequently to exert pressure on the pivotal point directly proportioned to his distance therefrom." In brief, it is the centre of gravity of the population of the country. **It is located twenty miles east of Columbus, Indiana.**



The change of centre of population each ten years in the United States is shown in the following table. The very rapid settlement of the Northwest of late would indicate that the line will move considerably northward in the next ten years.

Year.	*Centre of Population.*	*Move westward, Miles.*
1790	23 miles e. of Baltimore	
1800	18 miles w. of Baltimore	41
1810	40 miles n.-w. by w. of Washington	36
1820	16 miles n. of Woodstock, Va	50
1830	19 miles s.-w. of Moorefield, W. Va	39
1840	16 miles s. of Clarksburg, W. Va	55
1850	23 miles s. of Parkersburg, W. Va	65
1860	20 miles s. of Chillicothe, O	81
1870	48 miles e.-by-n. of Cincinnati, O	42
1880	8 miles w.-by-s. of Cincinnati, O	58
1890	20 miles e. of Columbus, Ind	48



The Brooklyn Bridge cost $15,000,000, having taken 13 years in construction, during which 20 lives were lost. Width 85 feet, height above water 135 feet. Weight 34,000 tons. There are 3,200 tons wire, section 580 square inches, strength 75 tons per square inch. Each of the four cables has 5,000 wires of ⅛ inch. There are two towers, 274 feet high, and 1,600 feet apart. The central way is 15 feet wide, for pedestrians; each of the railway lines has 16 feet width, and each of the ways for wagons, horses, etc., 19 feet; in all 85 feet.

The Forth Bridge, completed 1890, cost $12,750,000. Main girder, 5,330 feet; total length, 2,700 yards.

BUILDINGS.—Capacity of the largest public buildings in the world: Coliseum, Rome, 87,000; St. Peter's, Rome, 54,000; Theater of Pompey, Rome, 40,000; Cathedral, Milan, 37,000; St. Paul's, Rome, 32,000; St. Paul's, London, 31,000; St. Petronia, Bologna, 26,000; Cathedral, Florence, 24,300; Cathedral, Antwerp, 24,000; St. John Laterar, Rome, 23,000; St. Sophia's, Constantinople, 23,000; Notre Dame, Paris, 21,500; Theater of Marcellus, Rome, 20,000; Cathedral, Pisa, 13,000; St. Stephen's, Vienna, 12,400; St. Dominic's, Bologna, 12,000; St. Peter's, Bologna, 11,400; Cathedral, Vienna, 11,000; Madison Sq. Garden, New York, 10,000; Mormon Temple, Salt Lake City, 8,000; St. Mark's, Venice, 7,500; Spurgeon's Tabernacle, London, 6,000; Bolshoi Theater, St. Petersburg, 5,000; Tabernacle (Talmage's), 6,000; Music Hall, Cincinnati. 4,824; La Scala, Milan, 3,600.

CALENDAR.—1. Jewish, 383 days; the Jewish year 5645 began on September 20, 1884.

2. Julius Cæsar's, 365 days, B.C. 46, commenced in March.

3. Mahometan, 355 days, A.D. 622; the Mahometan year 1301 began February 19, 1884.

4. Charles IX., A.D. 1564, commenced January 1.

5. Pope Gregory XIII., A.D. 1582; now used except in Russia.

6. The Russian year begins on January 13 of our calendar. The Gregorian calendar was adopted in England in 1752, before which date the year began on March 25, which would now be April 5.

The festival of Easter, commemorating the resurrection of Christ, used to be observed on the 14th day of the moon, *i. e.*, near the full moon—the same as the Jewish Passover. But the Council of Nice, A.D. 325, ordered Easter to be celebrated on the Sunday next succeeding the full moon, that comes on or next after the vernal equinox—March 21, thus making Easter and the related feast and fast days movable holidays.

CAMELS.—A camel has twice the carrying power of an ox; with an ordinary load of 400 lbs. he can travel 12 or 14 days without water, going 40 miles a day. Camels are fit to work at 5 years old, but their strength begins to decline at 25, although they live usually till 40.

CANALS.—The great canals of the United States and other countries are given below, with length in miles and cost of construction:

		Miles.	Cost.
Suez	Egypt	92	$85,000,000
Burgundy	France	158	11,000,000
North Sea	Holland	14	10,150,000
Bengal	India	900	10,000,000
Chesapeake & Ohio	Maryland	191	10,000,000
Delaware & Hudson	N. Y. & Pa	108	9,000,000
Illinois & Michigan	Illinois	102	8,600,000
Erie	New York	363	9,000,000
Welland	Canada	41	7,000,000
Caledonian	Scotland	60	5,700,000
Central Division	Pennsylvania	173	5,500,000
James R. & Kanawha	Virginia	147	5,000,000
Ohio & Erie	Ohio	307	4,600,000
Miami	Ohio	178	3,700,000
Morris & Essex	New Jersey	101	3,000,000
Wabash & Erie	Indiana	469	3,000,000

The Nicaragua Canal Co. was organized in 1889, with a capital of $100,000,000. Excavations were begun at Greytown October 8, 1891. The total length of the proposed waterway is 169⅔ miles, of which 25¾ miles will be canal in excavation. The minimum depth is 30 feet. Lakes Nicaragua and Managua will furnish the high-level water supply. The outlet on the Pacific Coast will be at Brito. The estimated cost of the Panama Canal is $130,000,000. The length will be 46 miles, including a tunnel 4 miles in length, 100 feet wide and 160 feet high. When completed this canal will save about 10,000 miles of voyage between Europe and the Pacific.

CARBONIC ACID.—The quantity exhaled in 24 hours:

	Age.	Oz. Exhaled.		Age.	Oz. Exhaled.
Girl	10	9	Boy	16	16
Boy	10	10	Man	28	17
Woman	19	12			

The quantity varies according to exertion, namely: Sleeping, 0.6 oz. per hour; walking 2 miles per hour, 2.1; walking 3 miles per hour, 3.0; riding, 4.0; swimming, 4.4; treadmill, 5.5.

CATTLE.—See diagram.

CARRIER-PIGEONS.—In 1877 the newspaper *Nationale* of Paris had ten pigeons which carried dispatches daily between Versailles and Paris in fifteen to twenty minutes. In August, 1889, five pigeons flew from Saint Thomas, Ont., to Roslindale, Mass., 525 miles, in 11 hours and 25 minutes, averaging 1,350 yards a minute.

CHARCOAL.—To make a ton will require wood as follows: Oak, 4.4 tons; chestnut, 4.5; beech, 5.1; elm, 5.2; birch, 5.9; pine, 6.0. For heating power 12 lbs. charcoal are equal to 10 lbs. coal or 13 lbs. coke.

CHECKS.—The checks paid in New York and London in one month aggregate $6,350,000,000, which is greatly in excess of the value of all the gold and silver coin in existence.

CHEMISTRY.—Below are given the common names of various chemical substances:

Aqua Fortis	Nitric Acid.
Aqua Regia	Nitro-Muriatic Acid.
Blue Vitriol	Sulphate of Copper.
Cream of Tartar	Bitartrate Potassium.
Calomel	Chloride of Mercury.
Chalk	Carbonate Calcium.
Salt of Tartar	Carbonate of Potassa.
Caustic Potassa	Hydrate Potassium.
Chloroform	Chloride of Formyle.
Common Salt	Chloride of Sodium.
Copperas, or Green Vitriol	Sulphate of Iron.
Corrosive Sublimate	Bi-Chloride of Mercury.
Diamond	Pure Carbon.
Dry Alum	Sulphate Alluminum and Potassium.
Epsom Salts	Sulphate of Magnesia.
Ethiops Mineral	Black Sulphide of Mercury.
Galena	Sulphide of Lead.
Glauber's Salt	Sulphate of Sodium.
Glucose	Grape Sugar.
Iron Pyrites	Bi-Sulphide Iron.
Jeweler's Putty	Oxide of Tin.

King's Yellow	Sulphide of Arsenic.
Laughing-Gas	Protoxide of Nitrogen.
Lime	Oxide of Calcium.
Lunar Caustic	Nitrate of Silver.
Muriate of Lime	Chloride of Calcium.
Niter of Saltpeter	Nitrate of Potash.
Oil of Vitriol	Sulphuric Acid.
Potash	Oxide of Potassium.
Realgar	Sulphide of Arsenic.
Red Lead	Oxide of Lead.
Rust of Iron	Oxide of Iron.
Salmoniac	Muriate of Ammonia.
Slacked Lime	Hydrate Calcium.
Soda	Oxide of Sodium.
Spirits of Hartshorn	Ammonia.
Spirit of Salt	Hydro-Chloric or Muriatic Acid.
Stucco, or Plaster of Paris	Sulphate of Lime.
Sugar of Lead	Acetate of Lead.
Verdigris	Basic Acetate of Copper.
Vermilion	Sulphide of Mercury.
Vinegar	Acetic Acid (Diluted).
Volatile Alkali	Ammonia.
Water	Oxide of Hydrogen.
White Precipitate	Ammoniated Mercury.
White Vitriol	Sulphate of Zinc.

CHILDBIRTH.—The average of deaths in childbirth for 20 years in England and Wales has been 32 per 10,000 births—1½ per cent of all mothers, since the average mother has five children.

CHOLERA.—In the visitation of 1866, the proportion of deaths per 10,000 inhabitants in the principal cities of Europe was as follows: London, 18; Dublin, 41; Vienna, 51; Marseilles, 64; Paris, 66; Berlin, 83; Naples, 89; St. Petersburg, 98; Madrid, 102; Brussels, 184; Palermo, 197; Constantinople, 738.

CHRISTIANITY.—See diagram *Distribution of Christians.*

CLIMATE.—The mean annual temperature at a given point in each of the forty-nine States and Territories, and also in Alaska, is shown in the following table:

Place of Observation.	Mean annual temperature.	Place of Observation.	Mean annual temperature.
Mobile, Ala	66°	Jackson, Miss	64°
Sitka, Alaska	46°	St. Louis, Mo	55°
Tucson, Ar	69°	Helena, Mon	43°
Little Rock, Ark	63°	Omaha, Neb	49°
San Francisco, Cal	55°	C'p Winfield Scott, Nev.	50°
Denver, Colo	48°	Concord, N. H.	46°
Hartford, Conn	50°	Trenton, N. J.	53°
Fort Randall, S. Dak	47°	Santa Fé, N. M	51°
Wilmington, Del	53°	Albany, N. Y.	48°
Washington, D. C.	55°	Raleigh, N. C.	59°
Jacksonville, Fla	69°	Columbus, O	53°
Atlanta, Ga	58°	Portland, Ore	53°
Fort Boise, Id	52°	Harrisburg, Penn	54°
Springfield, Ill	50°	Providence, R. I	48°
Indianapolis, Ind	51°	Columbia, S. C.	62°
Fort Gibson, Ind. Ter	60°	Nashville, Tenn	58°
Des Moines, Ia	49°	Austin, Tex	67°
Leavenworth, Kan	51°	Salt Lake City, Utah	52°
Louisville, Ky	56°	Montpelier, Vt.	43°
New Orleans, La	69°	Richmond, Va.	57°
Augusta, Me	45°	Steilacoom, Wash	51°
Baltimore, Md	54°	Romney, W. Va	52°
Boston, Mass	48°	Madison, Wis	45°
Detroit, Mich	47°	Fort Bridger, Wyo	41°
St. Paul, Minn	42°	Fort Buford, N. Dak	40°

COAL.—See diagram *Annual Production of Coal.*

COFFEE.—The *production* in one year is: Brazil, 333,000 tons; Java, 90,000; Ceylon, 53,000; West Indies, 42,000; Africa, 36,000; Manilla, etc., 35,000. Total, 589,000 tons.

The average annual *consumption* is as follows: United States, 165,000 tons; Germany, 110,000; Brazil, 62,000; France, 55,000; Belgium and Holland, 50,000; Austria, 40,000; British Colonies, 38,000; Russia, 20,000; United Kingdom, 15,000; Italy, 14,000.

The coffee fields of Brazil cover 2,000,000 acres, with 800,000,000 trees—that is, 400 per acre, each tree averaging almost 1 lb. per annum., the industry employing 800,000 hands.

COMMERCE.—The following table, prepared at the Bureau of Statistics, Washington, exhibits the steady increase of the trade of the United States during the past 25 years. Nearly the whole amount of merchandise exported is of home growth or manufacture, that of foreign origin exported in 1891 not exceeding two per cent. of the whole amount. It is noticeable that for the first seven years the imports exceeded the exports, but that during the past 18 years the balance has been generally in favor of the country. These figures represent the specie values of merchandise only.

Year.	Exports.	Imports.	Total.
1867	$294,506,141	$395,761,096	$690,267,237
1868	281,952,899	357,436,440	639,389,339
1869	286,117,697	417,506,379	703,624,76
1870	392,771,768	435,958,408	828,730,176
1871	442,820,178	520,223,684	963,043,862
1872	444,177,586	626,595,077	1,070,772,663
1873	522,476,922	642,136,210	1,164,616,132
1874	586,283,040	567,406,342	1,153,689,382
1875	513,442,711	533,005,436	1,046,448,147
1876	540,384,671	460,741,190	1,001,125,861
1877	602,475,220	451,323,126	1,053,798,346
1878	694,865,766	437,051,532	1,131,917,298
1879	710,439,441	445,777,775	1,156,217,216
1880	835,638,658	667,954,746	1,503,593,404
1881	902,377,346	642,664,628	1,545,041,,74
1882	750,542,257	724,639,574	1,475,181,831
1883	823,839,402	723,180,914	1,547,020,316
1884	740,513,609	667,697,693	1,408,211,302
1885	472,189,755	577,527,329	1,319,717,084
1886	670,524,530	635,430,130	1,314,000,000
1887	710,183,211	692,319,768	1,408,502,979
1888	695,954,507	723,057,114	1,419,011,021
1889	742,401,375	745,131,052	1,487,533,027
1890	$57,828,084	780,310,400	1,047,130,693
1891	884,480,810	844,916,190	1,720,397,000

CONSUMPTION.—Of the total number of deaths the percentage traceable to consumption in the several States and Territories is as follows: Alabama, 9.6; Arizona, 6.1; Arkansas, 6.4; California, 15.6; Colorado, 8.2; Connecticut, 15.1; Dakota, 8.8; Delaware, 16.1; District of Columbia, 18.9; Florida, 8.3; Georgia, 7.9; Idaho, 6.8; Illinois, 10.3; Indiana, 12.6; Iowa, 9.9; Kansas, 7.3; Kentucky, 15.7; Louisiana, 10.4; Maine, 19.2; Maryland, 14.0; Massachusetts, 15.7; Michigan, 13.2; Minnesota, 9.3; Mississippi, 8.8; Missouri, 9.8; Montana, 5.6; Nebraska, 8.8; Nevada, 6.3; New Hampshire, 5.6; New Jersey, 8.9; New Mexico, 2.4; New York, 8.1; North Carolina, 9.5; Ohio, 13.8; Oregon, 12.1; Pennsylvania, 12.6; Rhode Island, 14.6; South Carolina, 9.8; Tennessee, 14.5; Texas, 6.5; Utah, 2.8; Vermont, 16.1; Virginia, 12.2; Washington, 13.2; West Virginia, 13.0; Wisconsin, 10.4; Wyoming, 2.6. Average, 12.0.

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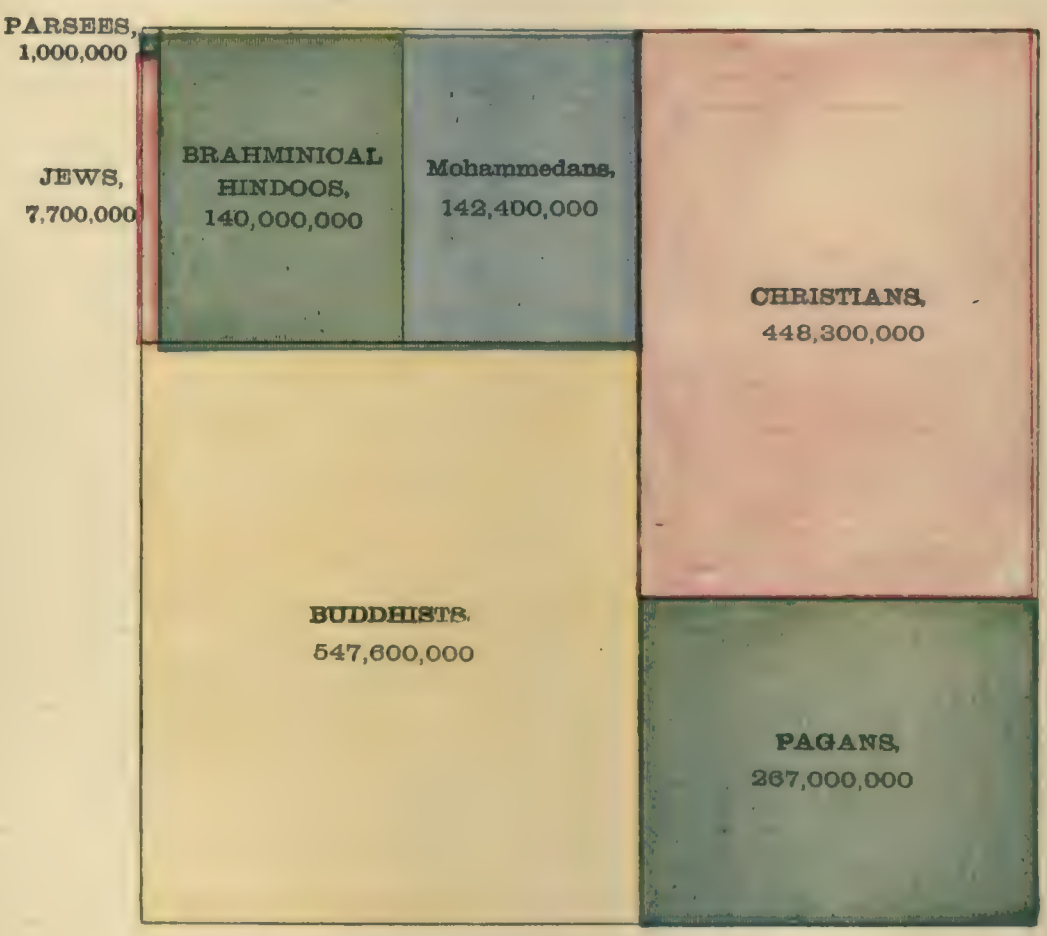
COTTON.—The area under cotton in the United States is increasing very rapidly:

Year.	Bales.	Year.	Bales.
1886	6,550,215	1889	6,935,082
1887	6,513,024	1890	7,313,720
1888	7,017,707	1891	8,055,518

See diagram *World's Yearly Production of Cotton and Tobacco.*

THE RELIGIONS OF THE WORLD.

(FROM THE VERY LATEST ESTIMATES.)

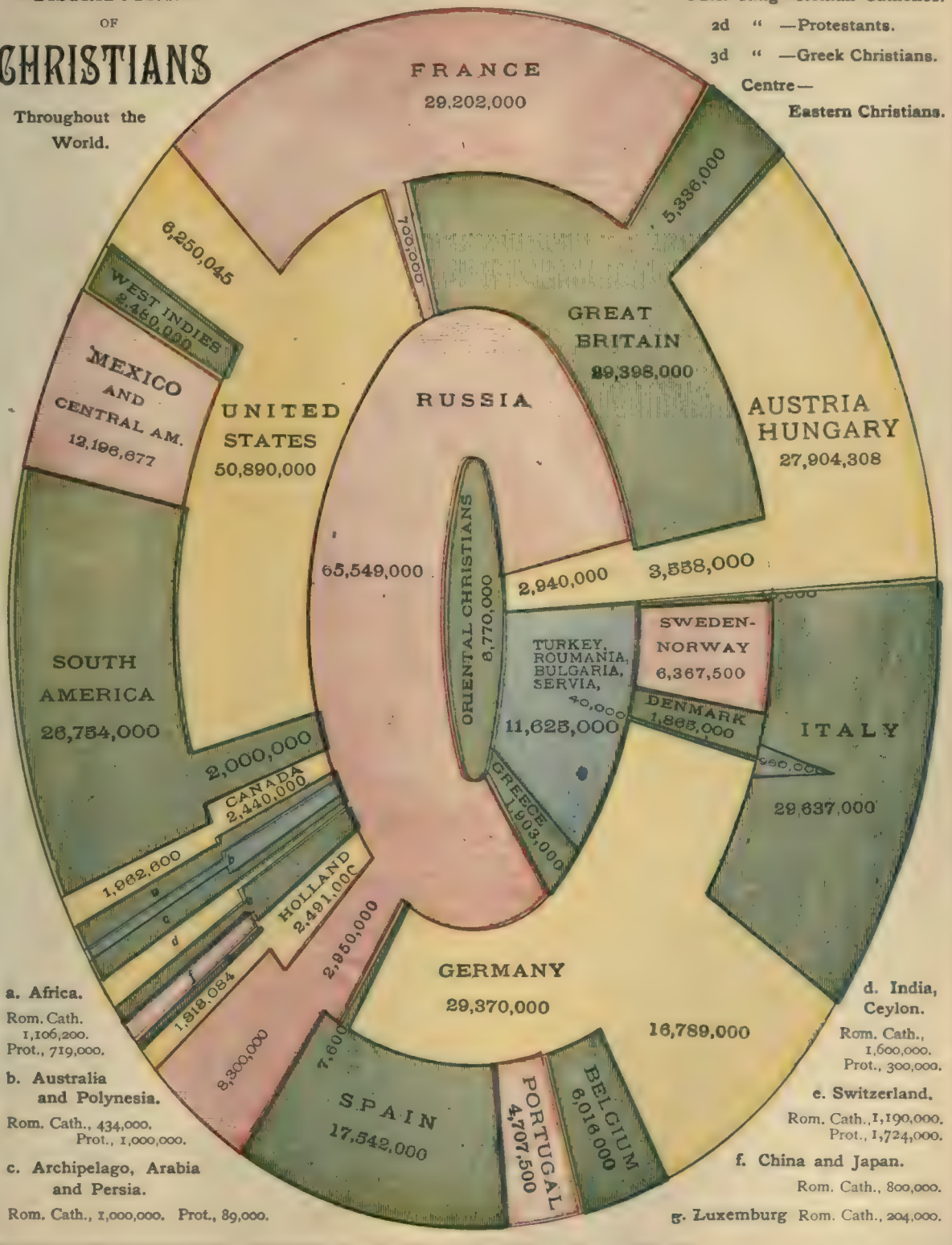




✣ DISTRIBUTION ✣ OF CHRISTIANS

Throughout the World.

Outer Ring—Roman Catholics.
2d " —Protestants.
3d " —Greek Christians.
Centre—
Eastern Christians.



a. Africa.
Rom. Cath. 1,106,200.
Prot., 719,000.

b. Australia and Polynesia.
Rom. Cath., 434,000.
Prot., 1,000,000.

c. Archipelago, Arabia and Persia.
Rom. Cath., 1,000,000. Prot., 89,000.

d. India, Ceylon.
Rom. Cath., 1,600,000.
Prot., 300,000.

e. Switzerland.
Rom. Cath., 1,190,000.
Prot., 1,724,000.

f. China and Japan.
Rom. Cath., 800,000.

g. Luxemburg Rom. Cath., 204,000.

CREMATION.—A body weighing 140 lbs. produces 2 lbs. ashes; time for burning, 55 minutes.

CRISES.—The most remarkable since the beginning of the present century have been as follows:

1814. England, 240 banks suspended.
1825. Manchester, failures 2 million pounds.
1831. Calcutta, failures 15 million pounds.
1837. United States, "Wild Cat" crisis; all banks closed.
1839. Bank of England saved by Bank of France. Severe also in France, where 93 companies failed for 6 million pounds.
1844. England. State loans to merchants. Bank of England reformed.
1847. England, failures 20 millions; discount 13 per cent.
1857. United States, 7,200 houses failed for $555,000,000.
1866. London, Overend-Gurney crisis; failures exceeded 100 million pounds.
1869. Black Friday in New York (Wall street), September 24.

CURRENCY—In the following table, the difference between the amount of money in the country and the amount in circulation represents the amount in the Treasury:

Year.	Amount of money in United States.	Amount in circulation	Money per capita	Circulat'n per capita.
1860	$442,102,477	$435,407,252	$14.06	$13.85
1861	452,005,767	448,405,767	14.09	13.98
1862	358,452,079	334,697,744	10.96	10 23
1863	674,867,283	595,394,038	20.23	17 84
1864	705,588,067	669,641,478	20 72	19 67
1865	770,129,755	714,702,995	22.16	20 57
1866	754,327,254	673,488,244	21.27	18.99
1867	728,200,612	661,992,069	20.11	18 28
1868	716,553,578	680,103,661	19 38	18 39
1869	715,351,180	664,452,891	18 95	17.60
1870	722,808,461	675,212,794	18 73	17 50
1871	741,812,174	715,889,005	18.75	18 10
1872	762,721,565	738,309,549	18 70	18.19
1873	774,445,610	751,881,809	18 58	18 04
1874	806,024,781	776,083,031	18.83	18.13
1875	798,273,509	754,101,947	18 16	17.16
1876	790,683,284	727,609,388	17 52	16.12
1877	763,053,847	722,314,883	16 46	15 58
1878	791,253,576	729,132,034	16.62	15 32
1879	1,051,521,541	818,631,793	21.52	16.75
1880	1,205,929,197	973,382,228	24 04	19 41
1881	1,406,541,823	1,114,238,119	27 41	21.71
1882	1,480,531,719	1,174,290,419	28 20	22 37
1883	1,643,489,816	1,230,305,696	30.60	22 91
1884	1,705,454,189	1,243,925,769	31.06	22 65
1885	1,817,658,336	1,292,568,615	32 37	23.02
1886	1,808,559,694	1,252,700,525	31.50	21.82
1887	1,900,442,672	1,317,539,143	32 39	22 45
1888	2,062,955,949	1,372,170,870	34.39	22 88
1889	2,075,350,711	1,380,361,649	33.86	22 52
1890	2,144,226,159	1,429,251,270	34.24	22 82
1891	2,195,224,075	1,497,440,707	34 31	23 41

Aggregate Issues of Paper Money in War Times.

The following table exhibits the amount *per capita* issued of the Continental money, the French *assignats*, the Confederate currency, and the legal-tender greenbacks and national bank notes of the United States:

	Amount issued.	Per head.
Continental money	$350,540,825	$119 84
French assignats	9,115,000,000	343 98
Confederate currency	654,405,063	71 89
	Highest amount in circulation, Jan., '66.	
Greenbacks and national bank notes	750,820,228	23 87

CUSTOMS.—See diagram, *Receipts and Expenditures U. S. Government.*

DEBT.—See diagram, *Public Debts.*

DEAF-MUTES.—The returns for the United States from the census of 1890 show the number of deaf-mutes to be 41,850, or 675 per million of population. The ratio of sex is 55 males to 45 females.

DEATH.—A man will die from want of air in five minutes; for want of sleep in ten days; for want of water in a week; for want of food, at varying intervals, dependent on various circumstances. See *Fasting.*

According to Prof. Conrad, the proportion of deaths to classes is as given below.

	Affluent.	Middle.	Working.
Stillborn	[illegible]	53	53
0– 1 year	118	240	276
1– 5 years	95	192	229
5–15 "	48	49	58
15–20 "	35	24	21
20–30 "	86	63	64
30–60 "	247	204	222
Over 60 years	343	175	156
Total	1,000	1,000	1,000

DIAMONDS.—The six largest weigh, respectively, as follows: Kohinoor, 103 carats; Star of Brazil, 125 carats; Regent of France, 136 carats; Austrian Kaiser, 139 carats; Russian Czar, 193 carats; Rajah of Borneo, 367 carats. The value of the above is not regulated by size, nor easy to estimate, but none of them is worth less than $500,000.

DIGESTION.—The time required for digesting various kinds of food is:

	Hours.	Min.		Hours.	Min.
Rice	1	0	Mutton, boiled	3	0
Eggs, raw	1	30	Beef, roast	3	0
Apples	1	30	Bread, fresh	3	15
Trout, boiled	1	30	Carrots, boiled	3	15
Venison, broiled	1	35	Turnips, "	3	30
Sago, boiled	1	45	Potatoes, "	3	30
Milk "	2	0	Butter	3	30
Bread, stale	2	0	Cheese	3	30
Milk, raw	2	15	Oysters, stewed	3	30
Turkey, boiled	2	25	Eggs, hard	3	30
Goose, roast	2	30	Pork, boiled	3	30
Lamb, broiled	2	30	Fowl, roast	4	0
Potatoes, baked	2	30	Beef, fried	4	0
Beans, boiled	2	30	Cabbage	4	30
Parsnips, boiled	2	30	Wild fowl	4	30
Oysters, raw	2	55	Pork, roast	5	15
Eggs, boiled	3	0	Veal, roast	5	30

DISEASES. The following table shows the number of deaths in the United States from the returns of 1890. While it is doubtless true that many deaths escape the notice of enumerators, still the data reached are very close to the actual facts.

Cause of Death.	Number.	Per Million Inhabitants.	Ratio.
Whooping-cough	14,835	237	1 56
Scarlet fever	19,941	317	2 09
Typhoid fever	27,830	443	2 93
Digestive diseases	42,435	675	4 47
Diphtheria	47,019	749	4 95
Diarrhœa	78,916	1,256	8 31
Nervous diseases	107,725	1,715	11 34
Consumption	111,216	1,770	11 70
Respiratory affections	137,560	2,190	14 48
Various	362,095	5,766	38 17
Total	949,572	15,118	100.00

DRUNKENNESS.—Mulhall estimates the number of years of intemperance required to produce death as follows:

Class.		Liquor.	
Women	14	Beer	22
Gentlemen	15	Spirits	17
Working class	18	Mixed	16

This shows that the working class can stand drink longest, and that beer is the least deadly form of intemperance.

The value of life, drunk and sober, as to expectancy of years, is given thus:

Age	Drunk.	Sober.
20	15	44
30	14	36
40	11	29

The number of cases of insanity traceable to drink is shown by the proportion of dipsomaniacs to all insane, as follows: Italy, 12 per cent; France, 21 per cent; United States, 26 per cent; Scotland, 28 per cent.

DWARFS.—The more notable human mites are named below:

Name.	Height. (Inches.)	Date of Birth.	Place of Birth.
Count Borowlaski	39	1739	Warsaw.
Tom Thumb (Chas. S. Stratton)	31	1837	New York.
Mrs. Tom Thumb	32	1842	"
Che-Mah	25	1838	China.
Lucia Zarate	20	1863	Mexico.
General Mite	21	1864	New York.

EDUCATION.—See diagram *Educational Statistics*. The progress of education since 1850 is shown in the following table, showing the ratio of adults able to write:

	1850.	1881.	1889
United States	84	90	92
England	64	84	91
Scotland	83	88	94
Ireland	55	67	77
France	57	78	85
Germany	86	94	96
Russia	2	11	15
Austria	34	49	55
Italy	28	41	47
Spain and Portugal	18	34	28
Switzerland	80	88	95
Belgium and Holland	62	86	86
Scandinavia	82	87	97

See also diagram *Educational Statistics*.

ELEVATION OF CONTINENTS.—The average above sea level is: Europe, 670 feet; Asia, 1,140 feet; North America, 1,150 feet; South America, 1,100 feet.

EVICTIONS.—The total number of families evicted in Ireland for 33 years is 482,000, as below:

Years.	Evicted.	Re-admitted.	Net Evictions.
1849–51	263,000	73,000	190,000
1852–60	110,000	28,000	82,000
1861–70	47,000	8,000	39,000
1871–80	41,000	6,000	35,000
1881–82	21,000	4,000	17,000
Total	482,000	119,000	363,000

The number of persons actually evicted was over two millions (say 70,000 per annum), about 35 per cent of the population.

EXHIBITIONS.—

Where Held.	Year.	Area, Acres.	Visitors.	Days Open.	Receipts.
London	1851	21	6,039,195	141	$1,780,000
Paris	1855	24½	5,162,330	200	644,100
London	1862	23½	6,211,103	171	1,614,260
Paris	1867	37	8,805,969	217	2,103,675
Vienna	1873	40	6,740,500	186	1,032,385
Philadelphia	1876	60	10,164,489	159	3,813,724
Paris	1878	60	16,032,725	194	2,531,650
Sydney	1879	26	1,117,536	210	200,000
Melbourne	1880	..	1,330,279	210	.....
Fisheries, London	1883	¶	2,703,051	147	585,000
Health, London	1884	..	4,153,390	151	892,545
Inventions, London	1885	..	3,760,581	163	750,000
Colonial, London	1886	13	5,550,745	164	1,025,000
Glasgow	1888	..	5,748,379	161	566,330
Paris	1889	75½	28,149,353	185	8,300,000

EXPENDITURES U. S. Government.—See diagram.

FAIRS.—That of Nijni-Novgorod is the greatest in the world, the value of goods sold being as follows: 1841, $35,000,000; 1857, $60,000,000; 1876, $140,000,000; the attendance in the last named year including 150,000 merchants from all parts of the world. In that of Leipsic the annual average of sales is $20,000,000, comprising 20,000 tons of merchandise, of which two-fifths is books.

FAMILIES.—Number of families in the United States (census of 1890), 12,896,825; average number to a square mile, 3.39. Number of dwellings, 11,607,143; average to the square mile, 3.05. Number of acres to a family, 188.74. Number of persons to a family, 5.08. Number of persons to a dwelling, 5.67.

FAMINES.—Walford mentions 160 since the 11th century, namely: England, 57; Ireland, 34; Scotland, 12; France, 10; Germany, 11; Italy, etc., 36.

The worst in modern times have been:

Country.	Date.	No. of Victims.
France	1870	48,000
Ireland	1847	1,029,000
India	1866	1,450,000
China	1878	9,500,000

Deaths from hunger and want were recorded as follows in 1879, according to Mulhall: Ireland, 3,789; England, 312; London, 101; France, 260. The proportion per 1,000 deaths was, respectively, 37.6, 0.6, 1.2, 0.3.

FASTING.—In 1684, four men were taken alive out of a mine in England, after 24 days without food. In 1880, Dr. Tanner, in New York, lived on water for 40 days, losing 36 lbs. in weight.

FARMS.—Number of farms in the United States in 1880, 4,008,907; in 1870, 2,659,985; in 1860, 2,044,077; in 1850, 1,449,073. Acreage in farms in 1891, 688,000,000.

FLAX.—The average annual production is as follows: Russia, 330,000 tons; Austria, 53,000; Germany, 48,000; Belgium and Holland, 38,000; France, 37,000; United Kingdom, 25,000; Italy, 23,000; United States, 42,000; Scandinavia, 4,000—total, 600,000 tons.

FOOD.—The yearly consumption of *necessaries*, in pounds, per inhabitant:

	Grain.	Meat.	Butter.	Sugar.
United States	392	120	16	23
United Kingdom	330	105	13	68
France	505	74	4	21
Germany	585	69	8	21
Russia	490	48	3	7
Austria	410	64	5	14
Italy	420	23	1	7
Spain	390	49	0	5
Belgium and Holland	445	69	8	16
Denmark	475	70	15	31
Sweden and Norway	340	65	9	17
Average	445	70	7	20

Luxuries are consumed as follows, per inhabitant:

	Ounces.			Gallons.		
	Coffee.	Tea.	Tobacco.	Wine.	Beer.	Spirits.
United States	115	21	59	0.60	7.20	1.50
United Kingdom	15	72	23	0.44	28.60	1.05
France	52	1	29	20.12	5.10	0.90
Germany	83	1	72	2.70	19.40	1.33
Russia	3	7	26	0.58	0.80	2.20
Austria	35	1	80	7.50	6.50	0.80
Italy	18	1	22	17.60	0.70	0.30
Spain	4	1	32	13.50	0.10	0.20
Belgium and Holland	175	8	84	0.80	22.20	2.60
Denmark	76	8	61	0.30	12.60	4.30
Sweden and Norway	88	2	29	0.20	5.40	4.20
Average	44	11	41	5.50	8.60	1.10

RELIGIONS IN THE UNITED STATES.

1892

Am. Wesleyan Methodists 16.492
Unitarians 20.000
7th Day Advent 28.891
Universalists 35.000

German Evangelical 136.156
Reformed Dutch 85.037
United Presb. 94.402
Friends 107.208
Meth. Evang. Ass. 132.708
2nd Advent 63.500
Mennonite 41.541
Methodist Protestant 136.514
Free Will Baptist 116.467
Presbyterian South 143.743
Reformed German 178.937
Christian Union 18.214
Cumberland Presbyterian 164.940
Methodist U. Brethren 185.103
Christian Baptists 140.000

Church of God 22.511
Anti-Mission Baptists 60.000
Dunkards 69.140

DISCIPLES BAPTISTS 582.800

Congregationalists 436.879

Protestant Episcopal 418.531

PRESBYTERIANS NORTH 661.809

LUTHERAN 1.199.514

Shakers 1.728

METHODIST EPISCOPAL NORTH 1.990.377

Six Principle Baptists 957

METHODIST EPISCOPAL SOUTH 1.056.028

NOTE.
About one third of the whole population is enrolled in Church membership, but a census of believers in Christianity would leave out only a very small fraction.

METHODIST EPISCOPAL AFRICAN 452.725

Jews 130.596

BAPTISTS 2.732.570

Mormons 166.125

Methodist Union Cold 3.500
Methodist Primitive 3.837
Gen. Synod
Reformed Presbyterian 4.602
Ind. Methodists 5.000
Swedenborgians 7.095
Reformed Ass. Presb. 7.515
Reformed Episcopal 8.455
7th Day Baptists 9.317

ROMAN CATHOLIC
6.250.045

Salvation Army 8.662

Reformed Presb. 10.574
Adventists 11.100
Moravians 11.781
Welsh Calvinist 12.722
Free Methodists 12.314
Cold. Cumb. Presb. 13.439
Cong. Meth. 13.750

Educational Statistics of the United States and other Countries.

Percentage of school population in daily attendance.

Percentage of school population enrolled in public schools.

Average monthly pay of female teachers.

Average monthly pay of male teachers.

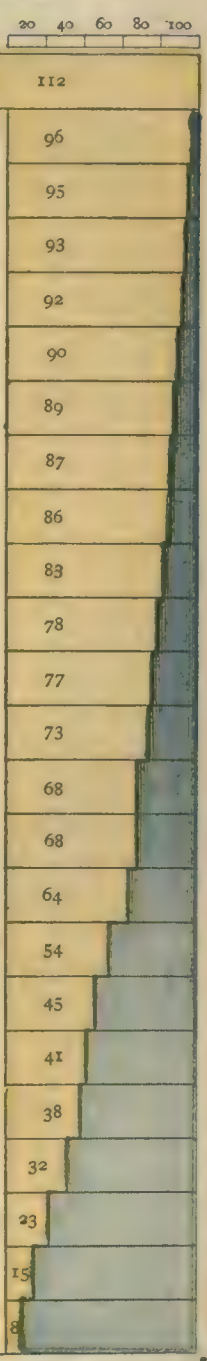
Year 1890.



Daily Att'nce.	Enrol'd Pupils.	Female Pay.	Male Pay.	States and Territories.	School Age.
77	104	$46.00	$109.00	Massachusetts.	5-15
66	89	25.00	43.00	N. Hampshire.	5-21
29	89	79.00	86.00	Arizona	6-18
53	87	39.00	74.00	Connecticut....	4-16
54	86	45.00	87.00	Rhode Island..	5-15
52	79	21.00	37.00	Vermont	5-20
50	78	30.00	39.00	Pennsylvania..	6-21
47	77	68.00	98 00	Nevada	6-18
	76	38.00	48.00	Texas.....	8-16
46	75	65.00	78.00	California.....	5-17
	75	33.00	40.00	Delaware.....	6-21
44	75	32.00	46.00	Michigan	5-20
45	74	30.00	38.00	Iowa	5-21
45	73	34.00	37.00	Indiana.....	6-21
51	72	17.00	35.00	Maine.....	4-21
45	72	34.00	41.00	Ohio	6-21
42	71	43.00	53.00	Illinois.....	6-21
	69			Idaho	5-21
40	67	35.00	42.00	Kansas	5-21
26	65			Missouri.....	5-20
45	65	28.00	52.00	Utah	6-18
36	64	43.00	43.00	New York.....	5-21
37	63	64.00	95.00	Colorado.....	6-21
35	63	42.00	67.00	New Jersey....	5-18
	62	31.00	41.00	Minnesota.....	5-21
41	62	26.00	30.00	West Virginia.	6-21
	62	31.00	48.00	Wisconsin.....	4-20
	62	56.00	69.00	Montana.....	4-21
	60	36.00	43.00	Nebraska.....	5-21
33	59	28.00	33.00	Mississippi....	5-21
11	59	33.00	36.00	Dakotas	7-20
47	59	62.00	103.00	Dist. Columbia.	6-17
38	58	28.00	28.00	Tennessee	6-21
30	57	40.00	40.00	Maryland.....	6-21
31	54	22.00	25.00	North Carolina	6-21
33	51			Florida	6-21
40	51	37.00	46.00	Oregon.....	4-20
	51	24.00	27.00	South Carolina.	6-18
30	48			Georgia	6-18
31	48	36.00	35.00	Kentucky	6-20
27	43	17.00	17.00	Alabama.....	7-21
24	42	27.00	31.00	Virginia	5-21
	41	40.00	48.00	Washington...	5-21
20	30	29.00	32.00	Louisiana.....	6-18
	18			New Mexico...	5-20
	16	33.00	45.00	Arkansas	6-21
		72.00	72.00	Wyoming	6-21

Percentage of school population of various countries, attending elementary schools.

From Reports of the United States Bureau of Education.



These food statistics are by Mulhall. There are many valuable items of food besides these. Grain is largely supplemented by potatoes in Ireland and Germany, and by chestnuts in Italy; moreover, this column does not include rice, the consumption of which is rapidly increasing. Meat includes fowl, but neither game nor fish, nor lard, all of which enter largely into European food. Cheese is another important item not included above. The same may be said of fruit and vegetables.

Relative Value of Food (Beef par).

Oysters, 22; milk, 24; lobsters, 50; cream, 56; codfish, 68; eggs, 72; turbot, 84; mutton, 87; venison, 89; veal, 92; fowl, 94; herring, 100; beef, 100; duck, 104; salmon, 108; pork, 116; butter, 124; cheese, 155.

Percentage of Carbon in Food.

Cabbage, 3; beer, 4; carrots, 5; milk, 7; parsnips, 8; fish, 9; potatoes, 12; eggs, 16; beef, 27; bread, 27; cheese, 36; peas, 36; rice, 38; corn, 38; biscuit, 42; oatmeal, 42; sugar, 42; flour, 46; bacon, 54; cocoa, 69; butter, 79.

Foot-tons of Energy per Ounce of Food.

Cabbage, 16; carrots, 20; milk, 24; ale, 30; potatoes, 38; porter, 42; beef, 55; egg, 57; ham, 65; bread, 83; egg (yolk), 127; sugar, 130; rice, 145; flour, 148; arrowroot, 151; oatmeal, 152; cheese, 168; butter, 281.

Loss of Meat in Cooking.

100 lbs. raw beef	= 67 lbs. roast	100 lbs. raw fowl	= 80	roast
100 " "	= 74 " boiled	100 " "	= 87	boiled
100 " raw mutton	= 75 " roast	100 " raw fish	= 94	boiled

FOREIGN POPULATION.—See diagram, *Curiosities of the Census.*

FORESTS.—The forests of the world cover 1,501 millions of acres, distributed as follows: Russia, 485 millions; United States, 476; Canada, 174; Brazil, 135; Scandinavia, 63; Austria, 46; Gran Chaco, 37; Germany, 33; France, 23; Italy, 11; Spain and Portugal, 8; Algeria, 6; United Kingdom, 2; Belgium and Holland, 1½. These figures are from an estimate made in 1883. Since 1848 the French have converted 9 million acres of waste land into forests, producing nearly $2 an acre. Paris burns the timber of 50,000 acres yearly. Woodcutters in the United States fell 30,000 acres daily, or 9 million acres per annum. In 1892, the forest area of the United States, exclusive of Alaska and Indian reservations, was 481,764,599 acres.

FREIGHT.—Capacity of a ten-ton freight car:

Whisky	60 barrels	Lumber, green	6,000 feet.
Salt	70 "	Lumber, dry	10,000 feet.
Lime	70 "	Barley	300 bushels.
Flour	90 "	Wheat	340 "
Eggs	130 to 160 "	Apples	370 "
Flour	200 sacks.	Corn	400 "
Cattle	18 to 20 head.	Potatoes	430 "
Hogs	50 to 60 "	Oats	680 "
Sheep	80 to 100 "	Bran	1,000 "

FRUIT.—The degrees of sugar in various fruits are: Peach, 1.6; raspberry, 4.0; strawberry, 5.7; currant, 6.1; gooseberry, 7.2; apple, 7.9; mulberry, 9.2; pear, 9.4; cherry, 10.8; grape, 14.9.

FUEL.—Pounds of water evaporated by 1 lb. of fuel as follows: Straw, 1.9; wood, 3.1; peat, 3.8; coke or charcoal, 6.4; coal, 7.9; petroleum, 14.6.

GIANTS.—The most noted of ancient and modern times are as follows:

Name.	Place.	Height, Feet.	Period.
Goliath	Palestine	11.0	B.C. 1063.
Galbara	Rome	9.9	Claudius Cæsar.
John Middleton	England	9.3	A.D. 1578.
Frederick's Swede	Sweden	8.4	
Cujanus	Finland	7.9	
Gilly	Tyrol	8.1	
Patrick Cotter	Cork	8.7	1806.
Chang Gow	Pekin	7.8	1880.

Many of the great men of history have been rather small in stature. Napoleon was only about 5 ft. 4 in., Washington was 5 ft. 7½ in. One of the greatest of American statesmen, Alexander H. Stephens, never exceeded 115 pounds weight, and in his old age his weight was less than 100 lbs.

GOLD.—See diagram, *The World's Yearly Production of the Precious Metals.*

GRAVITY, SPECIFIC.—A gallon of water or wine weighs 10 lbs., and this is taken as the basis of the following table:

LIQUIDS.		TIMBER.		METALS.	
Water	100	Cork	24	Zinc	719
Sea water	103	Poplar	38	Cast iron	721
Dead Sea	124	Fir	55	Tin	729
Alcohol	84	Cedar	61	Bar iron	779
Olive oil	92	Pear	66	Steel	783
Turpentine	99	Walnut	67	Copper	869
Wine	100	Cherry	72	Brass	840
Urine	101	Maple	75	Silver	1,051
Cider	102	Apple	79	Lead	1,135
Beer	102	Ash	84	Mercury	1,357
Woman's milk	102	Beech	85	Gold	1,926
Cow's "	103	Mahogany	106	Platina	1,950
Goat's "	104	Oak	117		
Porter	104	Ebony	133		

PRECIOUS STONES.

Emerald	277.5	Diamond	353.0	Garnet	406.3
Crystal	265.3	Topaz	401.1	Ruby	428.3

SUNDRIES.

Indigo	77	Peat	133	Porcelain	226
Gunpowder	93	Opium	134	Stone	252
Butter	94	Honey	145	Marble	270
Ice	117	Ivory	183	Granite	278
Clay	120	Brick	200	Chalk	279
Coal	130	Sulphur	203	Glass	289

Weight in Cubic Feet.

	Lbs. per Cub. Ft.		Lbs. per Cub Ft.
Cork	15	Brick	120
Cedar	36	Stone	150
Beech	51	Granite	166
Butter	56	Glass	172
Water	62	Iron	470
Mahogany	66	Copper	520
Ice	70	Silver	630
Oak	70	Lead	680
Clay	72	Gold	1,155
Coal	80		

GUANO.—The Peruvian Government exported from the Chincha Islands between 1850 and 1880 more than twelve million tons, worth $550,000,000.

HAIR.—That which is lightest in color is also lightest in weight. Light or blonde hair is generally the most luxuriant, and it has been calculated that the average number of hairs of this color on an average person's head is 140,000; while the number of brown hairs is 110,000, and black only 103,000.

HEAT.—Ice melts at 32°; temperature of globe, 50°; blood heat, 98°; alcohol boils, 174°; water boils, 212°; lead melts; 594°; heat of common fire, 1,140°; brass melts, 2,233°; iron melts, 3,479°.

HEIGHT of noted cathedrals, monuments, buildings etc.:

	Feet.
Eiffel Tower, Paris	990
Washington Monument	555
Pyramid, Cheops, Egypt	543
Cathedral, Cologne	511
" Antwerp	476
" Strasburg	474
Tower, Utrecht	464
Steeple, St. Stephens, Vienna	460
Pyramid, Khafras, Egypt	456
St. Martin's Church, Bavaria	456
Chimney, Port Dundas, Glasgow	454
St. Peter's, Rome	448
Notre Dame, Amiens	422
Salisbury Spire England	406
Cathedral, Florence	380
" Cremona	372
" Freiburg	367
St. Paul's, London	365
Cathedral, Seville	360
Pyramid, Sakkarah, Egypt	356
Cathedral, Milan	355
Notre Dame, Munich	348
Invalides, Paris	347
Parliament House, London	340
Cathedral, Magdeburg	337
St. Patrick's, New York	328
St. Mark's, Venice	328
Cathedral, Bologna	321
" Norwich, England	309
" World " Bldg., New York	309
Statue of Liberty, N. Y.	305
Cathedral, Chichester, Eng.	300
" Lincoln, England	300
Capitol, Washington	300
St. James' Cathedral, Toronto	316
Trinity Church, New York	283
Cathedral, Mexico	280
" Montreal	280
Brooklyn Bridge	278
Campanile Tower, Florence	276
Masonic Temple, Chicago	265
Column, Delhi	260
Cathedral, Dantzic	250
Porcelain Tower, Nankin	248
Custom-House, St. Louis	240
Canterbury Tower, England	235
Notre Dame, Paris	232
Chicago Board of Trade	230
St. Patrick's, Dublin	226
Cathedral, Glasgow	225
Bunker Hill Monument	220
Norte Dame, Montreal	220
Cathedral, Lima	220
" Rheims	220
" Garden City, L.I.	219
Sts. Peter and Paul, Phila	210
Washington, Mon., Balto	210
Vendome, Mon., Paris	153

HOLIDAYS.—The legal holidays in the United States are as follows:

New Year's Day—Jan. 1.—In all States and Territories, except Arkansas, Delaware, Georgia, Kentucky, Maine, Massachusetts, New Hampshire, North Carolina, South Carolina and Rhode Island.

Anniversary of the Battle of New Orleans—Jan. 8.—In Louisiana.

Lincoln's Birthday—Feb. 12.—In Louisiana.

Washington's Birthday—Feb. 22—In all States and Territories except Alabama, Arkansas, Florida, Illinois, Iowa, Indiana, Kansas, Maine, Missouri, North Carolina, Ohio, Texas, Oregon and Tennessee.

Shrove Tuesday—March 1—In Louisiana, and cities of Mobile, Montgomery and Selma, Ala.

Anniversary of Texan Independence—March 2—In Texas.

Firemen's Anniversary—March 4—In Louisiana.

Good Friday—April 15—In Florida, Louisiana, Minnesota and Pennsylvania.

Memorial Day—April 26—In Georgia.

Battle of San Jacinto—April 21—In Texas.

Decoration Day—May 30—In Colorado, Maine, Vermont, Connecticut, Michigan, New Hampshire, New Jersey, Rhode Island, New York, Pennsylvania and District of Columbia.

Fourth of July—In all States and Territories.

General Elec ion Day—Generally on Tuesday after first Monday in November—In California, Maine, Missouri, New Jersey, New York, Oregon, South Carolina and Wisconsin.

Thanksgiving Day—Usually last Thursday in November—and Fast days whenever appointed by the President—are legal holidays in all States and Territories.

Christmas Day—In all the States and Territories.

HOPS.—Average annual crop, in tons: England, 26,000; Germany 19,000; United States, 19,000; France, 4,500.

HORSE-POWER.—One horse-power will raise 10 tons per minute a height of 12 inches, working 8 hours a day. This is about 5,000 foot-tons daily, or 12 times a man's work.

The horse-power of Niagara is 3¼ million nominal, equal to 10 million horses effective.

ICE.—Good clear ice two inches thick will bear men to walk on; four inches thick will bear horses and riders; six inches thick will bear horses and teams with moderate loads.

ILLEGITIMACY.—The percentage of illegitimate births for various countries, as stated by Mulhall, is as follows; Austria, 12.9; Denmark, 11.2; Sweden, 10.2; Scotland, 8.9; Norway, 8.05; Germany, 8.04; France, 7.02; Belgium, 7.0; United States, 7.0; Italy, 6.8; Spain and Portugal, 5.5; Canada, 5.0; Switzerland, 4.6; Holland, 3.5; Russia, 3.1; Ireland, 2.3; Greece, 1.6.

ILLITERACY.—See *Education*.

IMMIGRATION.—The arrivals in the United States since 1820 are as follows in even thousands:

1820–30	143,000	1861–70	2,493,000
1831–40	600,000	1871–80	2,731,000
1841–50	1,706,000	1881–90	5,247,000
1851–60	2,598,000		

The grand total for seventy years is 15,527,000. Of the arrivals in 1891 there were: Germans, 113,554; English, 53,600; Scotch, 12,557; Irish, 55,706; Scandinavians, 59,107; Italians, 76,055; Various, 188,740—Total, 560,319.

INDIANS.—In 1880 the number of Indians in the United States was as follows: The greater part were gathered in the Indian Territory upon reservations assigned them by the Government: Choctaws, 16,000; Cherokees, 17,000; Muskogees, 13,000; Seminoles, 2,500; Chickasaws, 6,000; Osages, 4,000; Peoria, 170; Ottawas, 175; Sacs and Foxes, 700; Quapaws, 236. Of the Apaches in Arizona and New Mexico there are 14,349, and of a collection of tribes in Oregon, about 837. There is also a small remnant of the Oneida tribe in Wisconsin. The annual report of the U. S. Indian Commissioner for 1890 shows a total Indian population in the United States, exclusive of Alaska, of 249,273, all of whom, except about 18,000, are under control of the Government.

Indians in Canada.

Locality.	Population.	Property.	Average per Head.
Ontario	16,600	£1,968,000	£123
Quebec	11,000	363,000	33
Manitoba, etc	75,400	.....	.....

INDIA RUBBER.—This is mostly obtained from the Seringueros of the Amazon, who sell it for about 12 cents a pound to the merchants of Para, but its value on reaching England or the United States is over 50 cents a pound. The number of tons imported into Great Britain and the United States has been as follows:

	1860.	1870.	1880.	1887.
United States	1,610	4,316	7,529	12,000
Great Britain	2,150	7,606	8,479	11,800

The best rubber forests in Brazil will ultimately be exhausted, owing to the reckless mode followed by the Seringueros or tappers. The ordinary product of a tapper's work is from 10 to 16 lbs. daily. There are 120 india-rubber manufacturers in the United States, employing 15,000 operatives, who produce 280,000 tons of goods, valued at $260,000,000, per annum.

INDUSTRIES.—See diagram, *The World's Industries*.

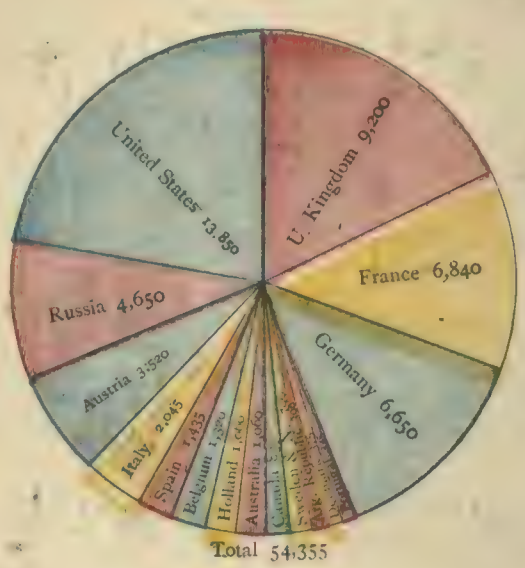
INSANITY.—It is estimated that the number of insane persons in the United States is 168,900; in Germany, 108,100; in France, 93,900; in England, 81,600; in Russia, 80,000; Italy, 44,100; Austria, 35,000; Ireland, 19,500; Scandinavia, 18,100; Spain and Portugal, 13,000; Scotland, 11,600; Belgium and Holland, 10,400; Canada, 7,300; Australia, 4,900; Switzerland, 3,100.

Causes of Insanity.—Hereditary, 24 per cent; drink, 14 per cent; business, 12 per cent; loss of friends, 11 per cent; sickness, 10 per cent; Various, 29 per cent.

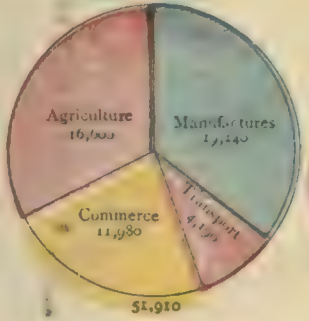
The above result is the medium average arrived at on comparing the returns for the United States, England, France and Denmark.

THE WORLD'S INDUSTRIES COMPARED.

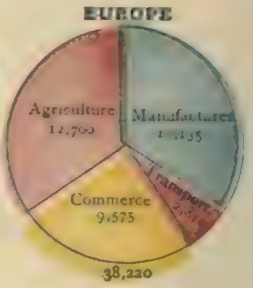
Aggregate Annual Industries of the World, in Millions of Dollars.



THE WORLD



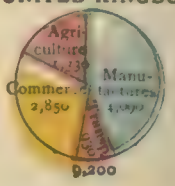
EUROPE



UNITED STATES



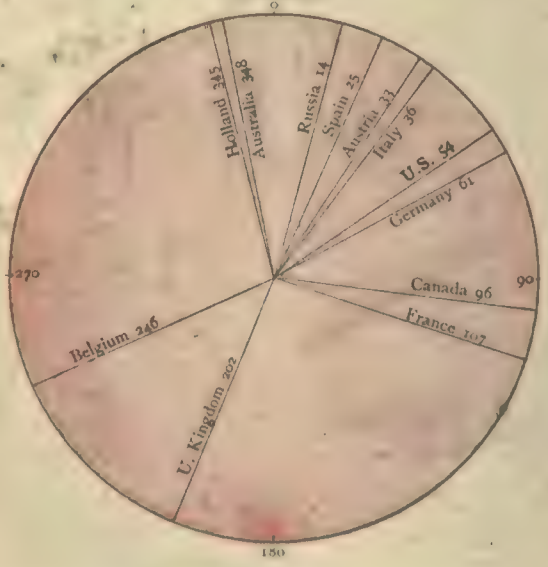
UNITED KINGDOM



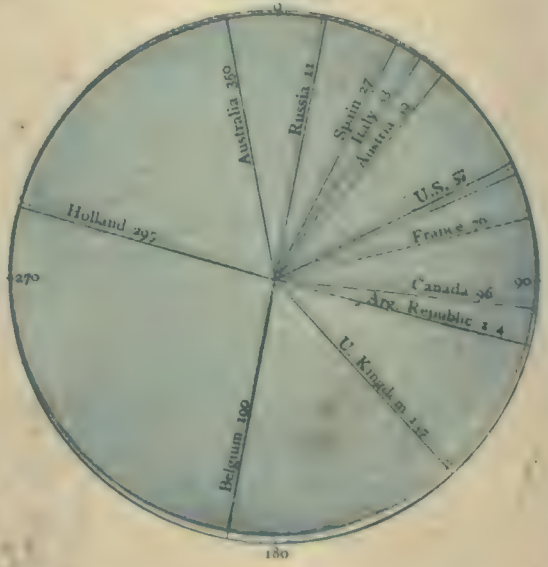
THE WORLD'S COMMERCIAL BALANCE-SHEET.

In the following diagrams are shown the annual imports and exports per inhabitant of the principal nations. The figures indicate quarter dollars. The quarter dollar has been adopted as the unit so as to bring the comparison within the compass of a circle of 360 degrees. EXAMPLE.—The figures representing the United States in the diagram of imports will be found on the line representing the 54th degree, and indicate that the United States import yearly merchandise to the value of 54 quarter dollars, or $13.50, for every inhabitant. The exports, on the other hand, amount to $14.25 per inhabitant.

IMPORTS

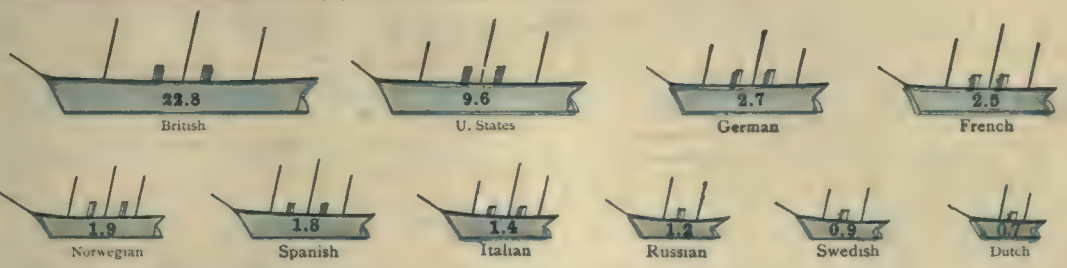


EXPORTS

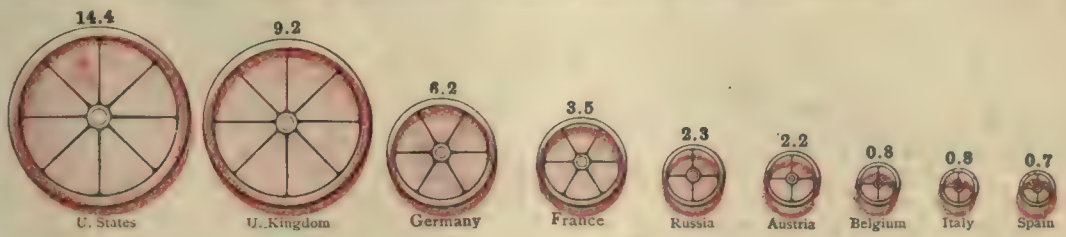


Shipping, Steam Power, Agriculture, Cattle, and War Expenditure.

SHIPPING. Showing carrying power in millions of tons.



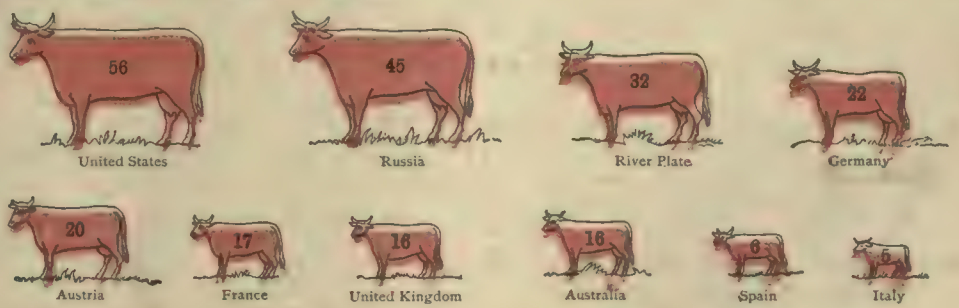
STEAM POWER. In millions horsepower. (Including stationary and locomotive engines.)



AGRICULTURE. Annual value of agricultural and pastoral products in millions of dollars.



CATTLE. Showing the number in millions.



ARMY AND NAVY EXPENDITURE. Showing the cost per inhabitant per annum.



INTERNAL REVENUE.—See diagram, page 546.

IRON.—See diagram *Pig Iron*, page 570.

LABOR.—Dr. Farr estimates the value of an agricultural laborer to the commonwealth as follows:

Age.	Value.	Age.	Value.	Age.	Value.
5	$280	30	$1,205	55	$690
10	585	35	1,140	60	485
15	960	40	1,060	65	230
20	1,170	45	965	70	0
25	1,230	50	840		

At the age of 75 he is a loss of $125, and the loss rises to $205 at 80. This is only true of agricultural laborers, since intellectual workers are often of much value after 70 years of age, which balances the account.

LAKES.—The length and width of the principal lakes of the world, in miles, is as follows:

	Length.	Width.		Length.	Width.
Superior	380	120	Great Bear	150	40
Baikal	360	35	Ladoga	125	75
Michigan	330	60	Champlain	123	12
Great Slave	300	45	Nicaragua	120	40
Huron	250	90	Lake of the Woods	70	25
Winnipeg	240	40	Geneva	50	10
Erie	270	50	Constance	45	10
Athabasca	200	20	Cayuga	36	4
Ontario	180	40	George	36	3
Maracaybo	150	60			

LAND GRANTS.—From the year 1787 till 1888, the United States Government ceded 192,000,000 acres of public lands to railways, 77,000,000 to schools, 62,000,000 to military, and 30,000,000 for other purposes, besides 248,000 acres in sales to settlers, this last item including 125,000,000 granted in homestead lots.

LANGUAGES.—The English language is spoken by 100,000,000 people; French, 48,000,000; German, 69,000,000; Italian, 30,000,000; Spanish, 41,000,000; Portuguese, 13,000,000; Russian, 67,000,000.

LEPROSY.—There are 131,600 lepers in India, 10,000 in Canton, 3,300 in Mauritius, 3,000 in Portugal, 1,800 in Hawaii, 1,770 in Norway, 900 in Crete, 600 in Reunion, 350 in Greece, 120 in Rio Janeiro, 100 in Sweden, and 13 in Iceland. A recent estimate in Russia places the number at about 6,000.

LIFE.—American life-average for professions (Boston): Storekeepers, 41.8 years; teamsters, 43.6 years; laborers, 44.6 years; seamen, 46.1 years; mechanics, 47.3 years; merchants, 48.4 years; lawyers, 52.6 years; farmers, 64.2 years. *See Expectancy Table.*

LONGEVITY.—The average of human life is 33 years. One child out of every four dies before the age of 7 years, and only one-half of the world's population reach the age of 17. One out of 10,000 reaches 100 years. The average number of births per day is about 120,000, exceeding the deaths by about 15 per minute. There have been many alleged cases of longevity in all ages, but only a few are authentic.

MARRIAGE.—*A woman's chances of marriage at various ages.*—This curiously constructed exhibit by Mr. Finlayson, a European statistician, is drawn up from the registered cases of 1,000 married women, taken without selection. Of the 1,000 tabulated there were married:

Marriages.	Years of Age.	Marriages.	Years of Age.
32	14 to 15	41	28 to 29
101	16 " 17	18	30 " 31
219	18 " 19	15	32 " 33
230	20 " 21	8	34 " 35
165	22 " 24	4	36 " 37
102	24 " 25	2	38 " 39
60	26 " 27		

METALS.—Few people have any idea of the value of precious metals other than gold, silver and copper, which are commonly supposed to be the most precious of all. There are many metals more valuable and infinitely rarer. The following table gives the names and prices of all the known metals of pecuniary worth:

	Price per Av. pound.		Price per Av. pound.
Vanadium	$10,000 00	Gold	339 00
Rubidium	9,070 00	Molybdenum	225 00
Zirconium	7,200 00	Thallium	225 00
Lithium	7,000 00	Platinum	150 00
Glucium	5,400 90	Manganese	130 00
Calcium	4,500 00	Tungstein	115 00
Strontium	4,200 05	Magnesium	64 00
Terbium	4,080 00	Potassium	64 00
Vitrium	4,080 00	Aluminum*	32 00
Erbium	3,400 00	Silver	20 00
Cerium	3,400 00	Cobalt	16 00
Didymium	3,200 00	Sodium	8 00
Indium	3,200 00	Nickel	5 00
Ruthenium	2,400 00	Cadmium	4 00
Rhodium	2,300 00	Bismuth	2 50
Niobium	2,300 00	Mercury	95
Barium	1,800 00	Arsenic	50
Palladium	1,400 00	Tin	25
Osmium	1,300 00	Copper	25
Iridium	1,090 00	Antimony	16
Uranium	900 00	Zinc	11
Titanium	689 00	Lead	08
Chromium	500 00		

* Recent processes are reducing cost of production indefinitely.

As Conductors.

	Heat.	Electricity.		Heat.	Electricity.
Gold	100	94	Iron	37	16
Platinum	98	16	Zinc	36	29
Silver	97	74	Tin	30	15
Copper	90	100	Lead	18	8

Tenacity.

A wire, 0.84 of a line in diameter, will sustain weights as follows:

Lead	28 lbs.	Silver	187 lbs.
Tin	35 "	Platinum	274 "
Zinc	110 "	Copper	302 "
Gold	150 "	Iron	549 "

Fluid Density.

Zinc	6.48	Copper	8.22
Iron	6.88	Silver	9.51
Tin	7.03	Lead	10.37

MILITARY AND NAVAL STRENGTH.—See diagram, page 336.

MILK.—The component parts of milk are as follows:

	Water.	Fat.	Caseine.	Sugar.	Total.
Woman	89.3	2.5	3.4	4.8	100.0
Cow	86.0	4.0	7.2	2.8	100.0
Ass	90.9	1.1	1.9	6.1	100.0
Goat	86.8	3.3	4.0	5.9	100.0
Ewe	85.6	4.2	4.5	5.7	100.0

MONEY.—The amount of money in circulation in the principal nations of the world is as follows, paper money being included as well as gold and silver: France, $2,005,000,000; United States, $1,056,000,000; India, $960,000,000; United Kingdom, $925,000,000; Russia, $760,000,000; Germany, $750,000,000; Italy, $525,000,000; South America, $465,000,000; Austria, $410,000,000; Spain, $265,000,000; Japan, $255,000,000; Belgium, $210,000,000; Holland, $165,000,000; Australia, $95,000,000. The amount of coin in circula-

tion, exclusive of copper, is as follows: France, $1,505,000,000; India, $900,000,000; United States, $1,689,000,000; United Kingdom, $715,000,000; Germany, $540,000,000; Italy, $225,000,000; Spain, $205,000,000; Russia, $170,000,000; Belgium, $145,000,000; South America, $140,000,000; Japan, $125,000,000; Austria, $100,000,000; Holland, $85,000,000; Australia, $70,000,000.

MOUNTAINS.—Highest and most noted mountains on the globe.—NORTH AMERICA.—*Northern Coast Mts.:* Mt. St. Elias, 18,283 ft. *Sierra Nevada and Cascade Range:* Mt. Whitney, 14,887; Mt. Rainier, 14,444; Mt. Shasta, 14,440; Mt. Tyndall, 14,386; Mt. Dana, 13,277; Mt. Hood, 11,225. *Rocky Mountains:* Uncompahgre Peak, 14,540; Mt. Harvard, 14,384; Gray's Peak, 14,341; Mt. Lincoln, 14,297; Long's Peak, 14,271; Pike's Peak, 14,149. *Mexican Plateau:* Orizaba, 17,897; Popocatepetl, 17,784; Iztaccihuatl, 15,700. CENTRAL AMERICA.—Agua, 14,494; Fuego, 12,790. SOUTH AMERICA.—*Andes:* Illampu, 24,812; Illimani, 24,155; Aconcagua, 23,421; Tupaugati, 22,015; Chimborazo, 21,424; Nevada de Sorata, 21,290; Nevada de Cayambe, 19,535; Anlisana, 19,137; Cotopaxi, 18,870; Tunguaragua, 16,424; Pichincha, 15,924. EUROPE.—Elburz (Asiatic boundary), 18,572; Blanc (Alps), 15,784; Rosa (Alps), 15,223; Matterhorn (Alps), 14,039; Finster-Aarhorn (Alps), 14,039; Jungfrau (Alps), 13,718; Iseran, 13,270; Mulhacen (Spain), 11,654; Maladetta (Spain), 11,426; Mt. Etna (Sicily), 10,874; Mt. Olympus (Greece), 9,754; St. Bernard (Switzerland), 8,000; Parnassus (the home of the muses, Greece), 6,000; Vesuvius (volcano, near Naples), 3,900. ASIA.—Everest (Himalayas, highest in the world), 29,002; Dapsang (Karakorum Mts.), 28,278; Kintchinjunga (Himalayas), 28,156; Dhawalagari (Himalayas), 26,826; Nanda Devi (Himalayas), 25,661; highest peak of the Hindoo Koosh Mts., 20,000; Ararat (Armenia), 17,200; Fusiyama (Japan) 14,177; Mt. Sinai (Arabia), 8,200. AFRICA.—Killimanjaro (Central Africa), 20,000; Kenia (do.), 18,000; Teneriffe (Canary Islands), 12,182; highest peak of the Atlas Mts., 11,400; highest peak of the Mts. of Abyssinia; 10,000. ISLANDS.—Mauna Loa (Sandwich Islands), 14,000; Ophir (Sumatra), 13,842; Owen Stanley (Papua), 13,205; Semero (Java), 12,000; Egmont (New Zealand), 8,840; highest peak of the Australian Alps, 7,500; Kilanea (Sandwich Islands), 6,000; Stromboli (volcano in the Mediterranean), 3,000.

The greatest height attained by Humboldt was 19,510 feet, in the Andes, but Mr. Whymper, in 1880, ascended Cotopaxi to 19,620 feet, and Chimborazo to 20,545 feet.

NAVIES.—See diagram, page 336; also *Navy Department.*

NAILS.—The size and weight of nails are as follows:

Name.	Length.	No. in lb.	Name.	Length.	No. in lb.
2 penny	1 inch	557	10 penny	2¾ inch	68
4 "	1¼ "	353	12 "	3 "	54
5 "	1¾ "	232	20 "	3½ "	34
6 "	2 "	167	Spikes	4 "	16
7 "	2¼ "	141	"	4½ "	12
8 "	2½ "	101	"	4 "	10

NAVAL ARMAMENT.—The progress of "iron-clad science" in 30 years has been:

1861. Richard Gatling patented his gun, firing 200 shots a minute. It now fires 400.

1862. The Merrimac and Monitor in American civil war; first battle of iron-clads.

1873. English rifle cannon send 200 lbs. shots, 9-ton guns, through 8-inch plate.

1874. Plates of 10 inches pierced in like manner

1876. Armstrong 100-ton guns broke 22-inch Creusot steel plates.

1879. Shot from 9-inch gun, 75 lbs. powder, unable to pierce a 12-inch plate of iron and steel alternate layers.

1880. Result of Krupp's experiments:—

Gun.	Inch.	Shot, Lbs.	Penetration.	Foot Tons.
Krupp	9½	348	18.1	8,630
British	11½	812	17.9	12,260

1889. Krupp's 130-ton 12-mile gun fires two 2,600-lb. shots a minute through 19-inch armor.

NICOTINE.—According to Orfila, the proportion of nicotine in Havana tobacco is 2 per cent; in French, 6 per cent, and in Virginia tobacco, 7 per cent. That in Brazilian is still higher.

NEWSPAPERS.—The population of the world, the number of newspapers in each continent in 1885, and the number of copies per annum in proportion to each inhabitant, are shown below:

	Population.	No. of publications.	Per head.
Europe	301,356,369	19,557	24.38
North America	76,033,776	14,802	36.66
Asia	1,007,128,657	775	0.01
South America	29,988,509	699	3.92
Australasia	3,670,850	661	30.63
Africa	205,000,000	182	0.01

The number of newspapers published in the United States in 1885 was 14,111, of which 1,273 were daily.

NICKNAMES of Natives of States and Territories.—Alabama, Lizards; Arkansas, Toothpicks; California, Gold-hunters; Colorado, Rovers; Connecticut, Wooden Nutmegs; Dakota, Squatters; Delaware, Muskrats; Florida, Fly-up-the-creeks; Georgia, Buzzards; Idaho, Fortune-seekers; Illinois, Suckers; Indiana, Hoosiers; Iowa, Hawkeyes; Kansas, Jayhawkers; Kentucky, Corn Crackers; Louisiana, Creoles; Maine, Foxes; Maryland, Clam-Humpers; Massachusetts, Yankees; Michigan, Wolverines; Minnesota, Gophers; Mississippi, Tadpoles; Missouri, Pukes; Nebraska, Bug-Eaters; Nevada, Sage Hens; New Hampshire, Granite Boys; New Jersey, Blues, or Clam-Catchers; New Mexico, Spanish Indians; New York, Knickerbockers; North Carolina, Tarheels; Ohio, Buckeyes; Oregon, Hard Cases; Pennsylvania, Pennamites, or Leather-Heads; Rhode Island, Gunflints; South Carolina, Weazles; Tennessee, Whelps; Texas, Beefheads; Utah, Polygamists; Vermont, Green Mountain Boys; Virginia, Beagles; Wisconsin, Badgers.

OCEANS.—The Pacific Ocean covers a surface of about 80,000,000 square miles; Atlantic, 40,000,000; Indian, 20,000,000; Southern, 10,000,000; Arctic, 5,000,000. The seas, bays, gulfs, etc., connected with each ocean, are included. Most geographers concede, however, that the exact superficial extent of the several oceans is not known with certainty, nor the exact proportion of land and water.

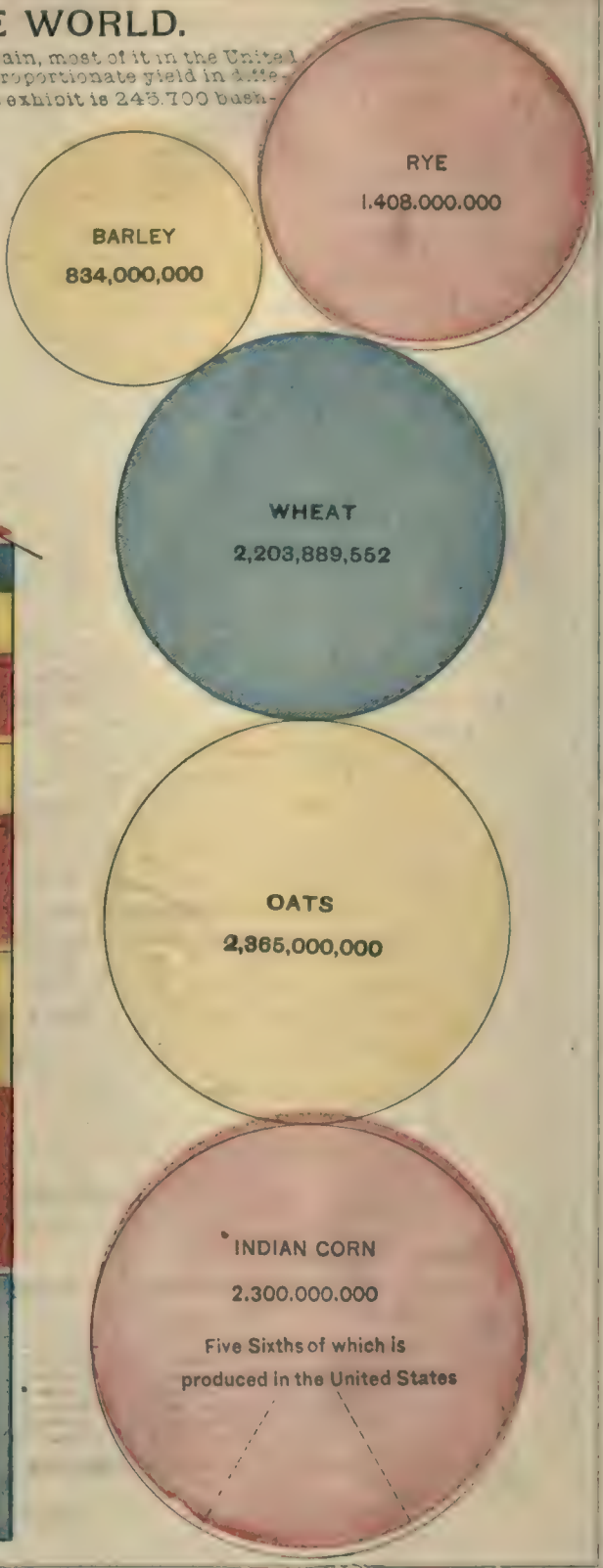
OPIUM.—The shipments from India for twenty years were about as follows: 1861–65, 4,305 tons; 1866–70, 4,870; 1871–75 5,250; 1876–80 6,005—value nearly $250,000,000. The shipment from Bombay in 1890 amounted to 5,976 tons.

A paper read before the New York Medical Society at Albany in 1885, by Dr. F. N. Hammond, presented some significant and important facts. In 1840 about 20,000 pounds of opium

THE GRAIN CROPS OF THE WORLD.

There is more Indian Corn produced than any other grain, most of it in the United States. Wheat being more generally distributed, the proportionate yield in different countries is given. The Scale Unit for the Wheat exhibit is 245,700 bushels. That for the grain circles is 1,399,800.





THE WORLD'S
PRODUCTION OF THE PRECIOUS METALS
IN ONE YEAR.

Gold (Dollars) Silver

Estimated value of the Gold and Silver produced in the United States during 42 years.

From 1849 to 1855 $ 385.350.000

1856 to 1860 $ 256.850.000

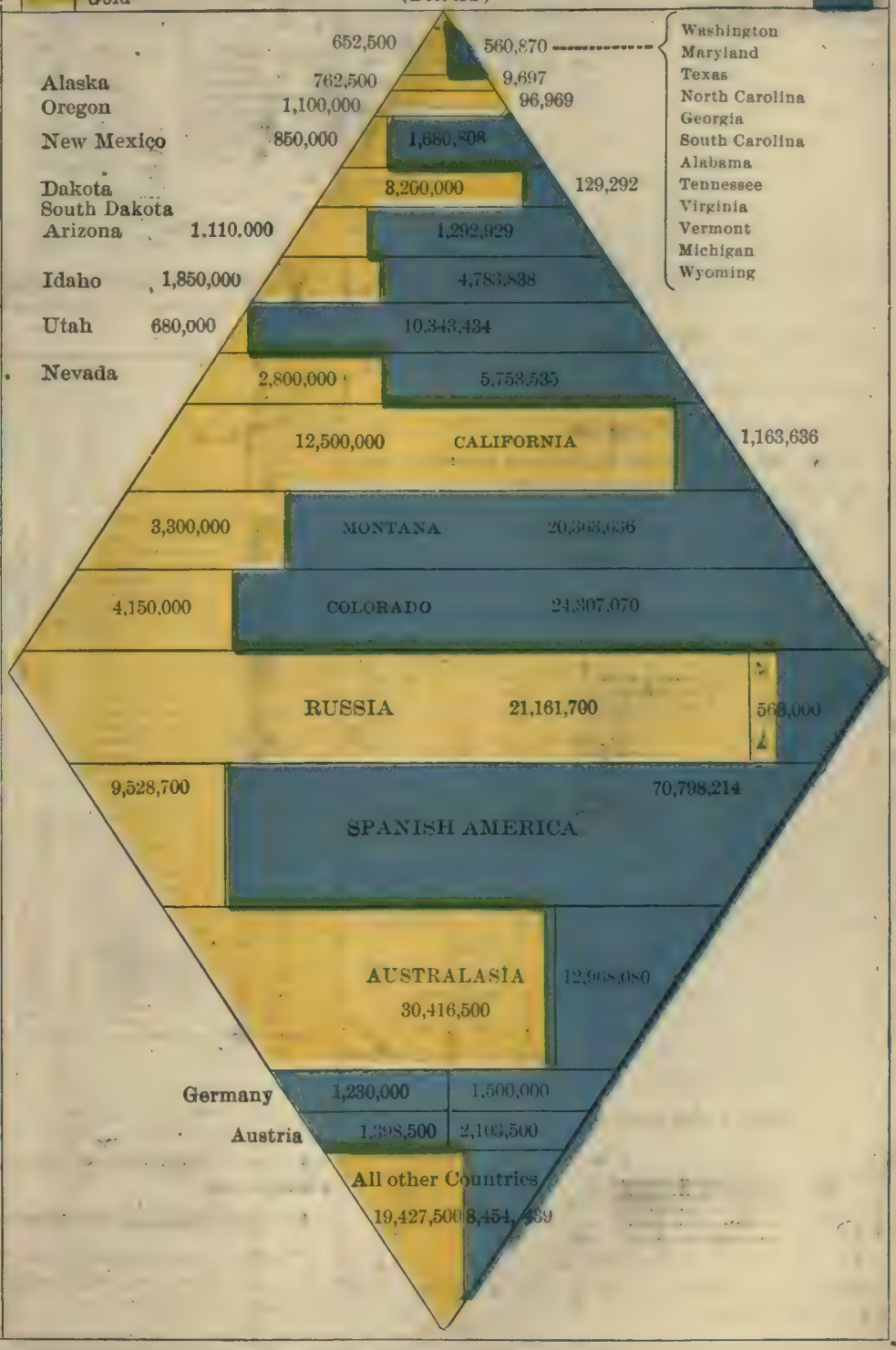
1861 to 1865 $ 258.775.000

1866 to 1870 $ 316.225.000

1871 to 1875 $ 339.010.912

1876 to 1880 $ 415.962.880

1881 to 1890 $861,675,000



were consumed in the United States; in 1880, 533,450 pounds. In 1868 there were about 90,000 habitual opium-eaters in the country; now they number over 500,000. More women than men are addicted to the use of the drug. The vice is one so easily contracted, so easily practiced in private, and so difficult of detection that it presents peculiar temptations and is very insidious. The relief from pain that it gives, and the peculiar exaltation of spirits, easily lead the victim to believe that the use of it is beneficial. Opium and chloral are to-day the most deadly foes of women. Dr. Hammond is the better qualified to speak on this subject from having once been a consumer of opium himself. To break off from the habit, he says, the opium-eater must reduce the quantity of his daily dose, using at the same time other stimulants, and gradually eliminate the deadly drug entirely.

OYSTERS.—Annual production, in millions: United States, 11,200; Portugal, 600; France, 380; United Kingdom, 300. Baltimore packs seven million bushels yearly.

PARTIES.—See diagram, page 333.

PHYSICANS.—The number of physicians and surgeons in various countries is as follows, according to Mulhall: United States, 65,000; England, 15,920; Scotland, 3,455; Ireland, 3,560; France, 10,743; Germany, 32,000; Russia, 13,475; Austria, 10,000; Italy, 9,400; Spain, 5,200; Belgium, 2,893; Scandinavia, 1,120.

PLAGUES.—Remarkable plagues of modern times:

Date.	Place.	Deaths.	Weeks.	Deaths per Week.
1656	Naples	380,000	[illegible]	10,400
1665	London	68,800	33	2,100
1720	Marseilles	39,100	36	1,100
1771	Moscow	87,800	32	2,700
1778	Constantinople	170,000	18	9,500
1798	Cairo	88,000	25	3,500
1812	Constantinople	144,000	13	11,100
1834	Cairo	57,000	18	3,200
1835	Alexandria	14,900	17	900
1871	Buenos Ayres	26,300	11	2,400

POLITICAL PARTIES.—See diagram, page 333.

POPES.—The various nations of Europe are represented in the list of Popes as follows: English, 1; Dutch, 1; Swiss, 1; Portuguese, 1; African, 2; Austrian, 2; Spanish, 5; German, 6; Syrian, 8; Greek, 14; French, 15; Italian, 197.

Eleven Popes reigned over 20 years; 69, from 10 to 20; 57, from 5 to 10; and the reign of 116 was less than 5 years.

POPULATION.—See diagrams, *Comparative Density of Population* and *Curiosities of the Census;* also full-page tables under head "Statistics of Population," pages 581–584.

Increase of Population in United States.

	Natural.	Immigration.	Total per Cent.
1831-40	23.02	4.65	32.67
1841-50	26.19	9.68	35.87
1851-60	24.20	11.38	35.58
1861-70	15.38	7.25	22.63
1871-80	22.78	7.29	30.07

The increase of population since 1830 (see page 581) has averaged 32 per cent every 10 years. At this rate there will be 88 millions in 1900.

The Great Powers of Europe.

	Thousands Omitted.					
	1380.	1480.	1580.	1680.	1780.	1880.
England	2,500	3,700	4,600	5,532	9,561	35,004
France	11,240	12,600	14,300	18,800	25,100	37,400
Prussia	600	800	1,000	1,400	5,430	45,260
Russia	1,200	2,100	4,300	12,600	26,800	84,440
Austria	2,300	9,500	16,500	14,000	20,200	37,232
Italy	8,400	9,200	10,400	11,500	12,800	27,[illegible]
Spain	7,500	8,200	8,150	9,200	9,360	17,[illegible]
Total	33,600	46,700	59,250	73,932	109,851	285,134

In the above, England now stands for the United Kingdom, and Prussia for the German Empire.

POULTRY.—The following table contains, in a small space, much valuable information for those engaged in the poultry business:

Breeds	Live weight of cock in pounds.	Live weight of Hen in pounds.	Age at maturity in months.	Cost of raising to maturity.	Annual cost of keeping.	Average value of Eggs laid per year.
Brahmas, light	11½	8	24	$1 50	$ 90	$1 50
Brahmas, dark	10½	7	24	1 50	90	1 50
Cochins, black	10	7	24	1 50	90	1 70
Cochins, buff	10	7½	24	1 50	90	1 20
Cochins, white	11	9	24	1 50	90	1 40
Cochins, partridge	11	8	24	1 50	90	1 50
Common	3½	3	12	1 00	75	1 60
Dorkings	6½	8	18	1 25	90	1 20
Dominiques, American	5	4	12	1 25	90	1 70
Games, black-breasted red	7½	8	12	1 00	[illegible]	1 70
Hamburgs	4	3	12	80	75	1 80
Houdans	7½	5	20	1 25	1 00	1 70
Leghorns, black	4½	3½	12	75	75	2 [illegible]
Leghorns, brown	4½	3½	12	75	75	2 00
Leghorns, dominique	4½	3½	12	75	75	2 00
Leghorns, white	4½	3½	12	75	75	2 00
Plymouth Rocks	8½	6½	18	1 50	90	1 75
Polish	5½	3½	14	1 00	75	1 70
Spanish, black	7	6	18	1 00	80	1 70
Ducks, common	3	3	6	75	1 00	90
Ducks, Aylesbury	7	8	18	1 00	1 00	80
Ducks, Cayuga	6	5½	15	90	1 00	1 00
Ducks, Pekin	6	5½	18	1 10	1 00	75
Duks, Rouen	7½	6½	24	1 10	1 00	80
Geese, common	8	7	12	1 25	1 50	20
Geese, African	20	18	24	1 75	2 00	30
Geese, Egyptian	7	6	12	1 00	1 50	40
Geese, Embden	18	15	30	1 75	2 00	20
Geese, Toulouse	22	20	36	2 00	2 00	40
Turkeys, common	12	10	12	1 20	1 50	50
Turkeys, black	15	12	18	1 75	1 75	50
Turkeys, bronze	24	15	36	2 00	2 00	50
Turkeys, buff	15	12	24	1 75	1 50	50
Turkeys, Narragansetts	22	14	30	1 75	1 75	50

A Comparison.

The annual supply of eggs in the United States is estimated at over 600,000,000 dozen, and at the low price of sixteen cents per dozen, represents a value of over $96,000,000—about the value of the product of our gold and silver mines.

PRECIOUS METALS.—See diagram, page 567.

PULSE.—The number of pulsations per minute is 120 in infancy, 80 in manhood, 60 in old age, and rather more in women than in men.

PYRAMIDS.—The largest, that of Cheops, is composed of four million tons of stone, and occupied 100,000 men during 20 years, equal to an outlay of $200,000,000. It would now cost $20,000,000 at a contract price of 36 cents per cubic foot.

QUININE.—Annual production: Peru, 8,900,000 lbs.; India, 2,200,000 lbs.; Java, 110,000 lbs.; Jamaica, 21,000 lbs. Total 11,231,000 lbs. of bark, yielding 236,000 lbs. of quinine.

RABBITS.—One pair of rabbits can become multiplied in four years into 1,250,000. They were introduced into Australia a few years ago, and now that colony ships 25,000,000 rabbit-skins yearly to England.

RAILWAYS.—[See diagram.] There are constant additions to the railroads of the United States, and the number of miles, on Jan. 1, 1891, had increased to 167,741, owned by 1,797 companies having a gross income of $1,051,877,632 and employing 749,301 men. The rest of America has 36,187 miles; Europe 136,859; Asia 19,277; Africa 5,365; Australia 11,136; total for the world 376,565.

Railway Signal Code.

One whistle signifies "down brakes." Two whistles signify "off brakes." Three whistles signify "back up." Continued whistles signify "danger." Rapid short whistles "a cattle alarm." A sweeping parting of the hands on the level with the eyes, signifies "go ahead." Downward motion of the hands with extended arms, signifies "stop." Beckoning motion of one hand, signifies "back." Red flag waved up the track, signifies "danger." Red flag stuck up by the roadside, signifies "danger ahead." Red flag carried on a locomotive, signifies "an engine following." Red flag hoisted at a station, is a signal to "stop." Lanterns at night raised and lowered vertically, is a signal "to start." Lanterns swung at right angles across the track, means "stop." Lanterns swung in a circle, signifies "back the train."

RECEIPTS and expenditures U. S. Government.—See diagram, page 546.

RAINFALL.—The average annual rainfall, as ascertained by observations at different points throughout the Union, is as follows:

	Inches.
Baltimore	41
Baton Rouge, La	60
Boston	44
Buffalo, N. Y	33
Burlington, Vt	34
Brunswick, Me	44
Charleston, S. C	43
Cleveland, Ohio	37
Cincinnati	44
Dalles, Or	21
Detroit, Mich	30
Fort Bliss, Tex	9
Fort Bridger, Utah	6
Fort Brown, Tex	33
Fort Colville, Wash	9
Fort Craig, N. Mex	11
Fort Defiance, Ariz	14
Fort Garland, Col	6
Fort Gibson, Indian Ter	36
Fort Hoskins, Or	66
Fort Kearney, Neb	25
Fort Laramie, Wy	15
Fort Leavenworth, Kan	31
Fort Marcy, N. Mex	16
Fort Massachusetts, Col	17
Fort Myers, Fla	56
Fort Randall, Dak	16
Fort Smith, Ark	40
Fort Snelling, Minn	25
Fort Towson, Indian Ter	57
Fort Vancouver, Wash. Ter	38
Fortress Monroe	47
Gaston, N. C	43
Hanover, N. H	40
Huntsville, Ala	54
Key West, Fla	36
Macinac, Mich	23
Marietta, Ohio	42
Meadow Valley, Cal	57
Memphis, Tenn	45
Milwaukee, Wis	30
Muscatine, Iowa	42
Mt. Vernon Arsenal, Ala	66
Natchez, Miss	53
Neah Bay, Wash	123
Newark, N. J	44
New Bedford, Mass	41
New Haven, Conn	44
New Orleans, La	51
New York	43
Penn Yan, N. Y	28
Peoria, Ill	35
Philadelphia	44
Pittsburgh, Pa	37
Providence, R. I	41
Richmond, Ind	43
Sacramento, Cal	19
Salt Lake, Utah	23
San Francisco, Cal	21
San Diego, Cal	9
Savannah, Ga	48
Sitka, Alaska	83
Springdale, Ky	48
St. Louis, Mo	42
Washington, Ark	54
Washington, D. C	37
White Sulphur Springs, Va	37

RELIGION.—[See diagrams.] The estimated number of religious denominations among English-speaking communities throughout the world is as follows: Episcopalians, 21,100,000; Methodists of all descriptions, 15,800,000; Roman Catholics, 14,340,000; Presbyterians of all descriptions, 10,500,000; Baptists of all descriptions, 8,160,000; Congregationalists, 6,000,000; Unitarians, 1,000,000; Free Thought, 1,100,000; minor religious sects, 2,000,000; of no particular religion, 20,000,000. Total English-speaking population, 100,000,000.

RICE.—Production: India, 16,800,000 tons; Japan, 3,450,000; Java, 2,740,000; Manilla, 1,800,000; Italy, 710,000; Ceylon, 480,000; United States, 90,000; Spain, 80,000.

RIVERS.—Length of principal rivers: NORTH AMERICA.—Missouri to the sea (longest in the world), 4,200; Missouri to the Mississippi, 2,800; Mississippi proper, 2,800; Mackenzie, 2,300; St. Lawrence, 2,200; Nelson and Saskatchewan, 1,900; Rio Grande, 1,800; Yukon, 1,600; Arkansas, 1,514; Ohio (including the Alleghany), 1,275; Columbia, 1,200; Red River, 1,200; Colorado, 1,100; Platte, 800; Brazos (Colorado of Texas), 650. SOUTH AMERICA.—Amazon, 3,600; Rio de la Plata (Parana included), 2,250; Orinoco, 1,500; St. Francisco, 1,500; Tocantius and Uraguay, 1,250; Magdalena, 900. EUROPE.—Volga, 2,000; Danube, 1,800; Don, Dneiper, 1,000; Rhine, 880; Petchora, Elbe, 737; Dwina, 700; Vistula, 691; Loire, 599; Tagus, 550; Dneister, Guadiana, 500; Oder, Douro, Rhone, Po, Seine, 450. ASIA.—Yenisei, 3,400; Yang-tse-Kiang, 3,320; Lena, Obi, Hoang-Ho, 2,700; Amoor, 2,650; Indus, 1,850; Mekong, 1,800; Euphrates, 1,750; Ganges, Brahmapootra, 1,600; Irrawaddy, 1,200; Tigris, 1,150 Ural, 1,000. AFRICA.—Nile, 3,895; Niger, 3,000; Zambesi, 1,800; Congo (or Livingstone), estimated, 1,600; Senegal, Orange, 1,000. AUSTRALIA.—Murray, 1,700.

ROMAN CATHOLIC CHURCH.—Pope Leo XIII is the 258th Pontiff. The full number of the Sacred College is 63, namely: Cardinal Bishops, 5; Cardinal Priests, 47; Cardinal Deacons, 11. At present there are 63 Cardinals. The Roman Catholic Hierarchy, according to official returns published at Rome recently consisted of 11 Patriarchs, and 1,153 Archbishops and Bishops. Including 12 coadjutor or auxiliary bishops, the number of Roman Catholic archbishops and bishops now holding office in the British Empire is 134. The numbers of the clergy are approximate only.

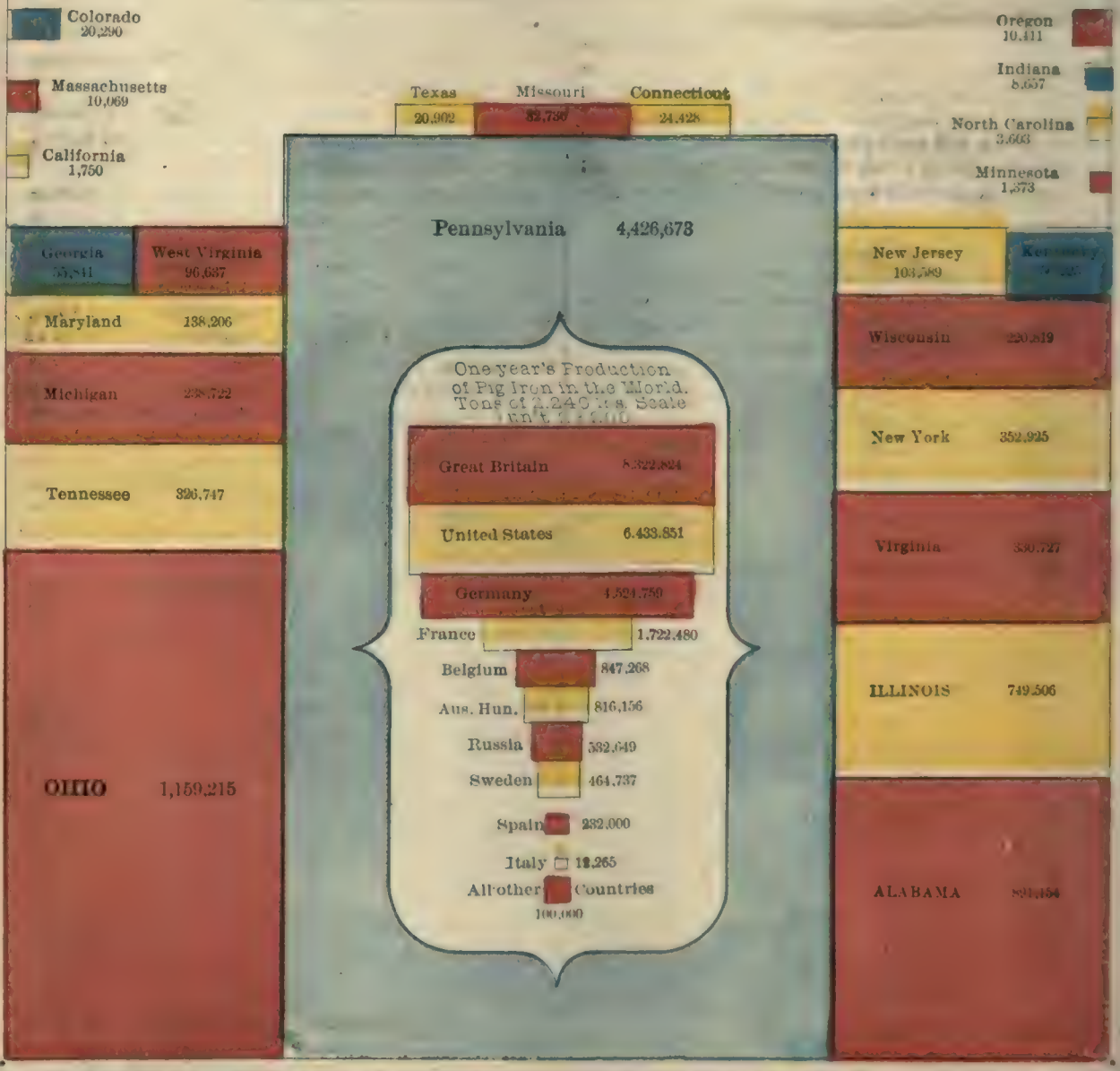
RYE.—The annual rye crop of the world is worth over $1,100,000,000, and feeds 180,000,000 of people. Russia produces annually 680,000,000 bushels; Germany, 240,000,000; Austria, 130,000,000; France, 80,000,000; Italy and Spain, 68,000,000; Scandinavia, 40,000,000, and the United States,

PRODUCTION OF PIG IRON IN THE UNITED STATES.

From Statistics of American Iron and Steel Association.

IN TONS OF 2.000 LBS. 1891. SCALE UNIT 500.

The condition of the Iron industry is looked upon by many as a more certain indication of the Country's prosperity, than may be gathered from any other source. In the smaller diagram, the figures for the United States are for 1891; those for other countries are from returns varying from 1888 to 1891—in all cases the latest data obtainable.



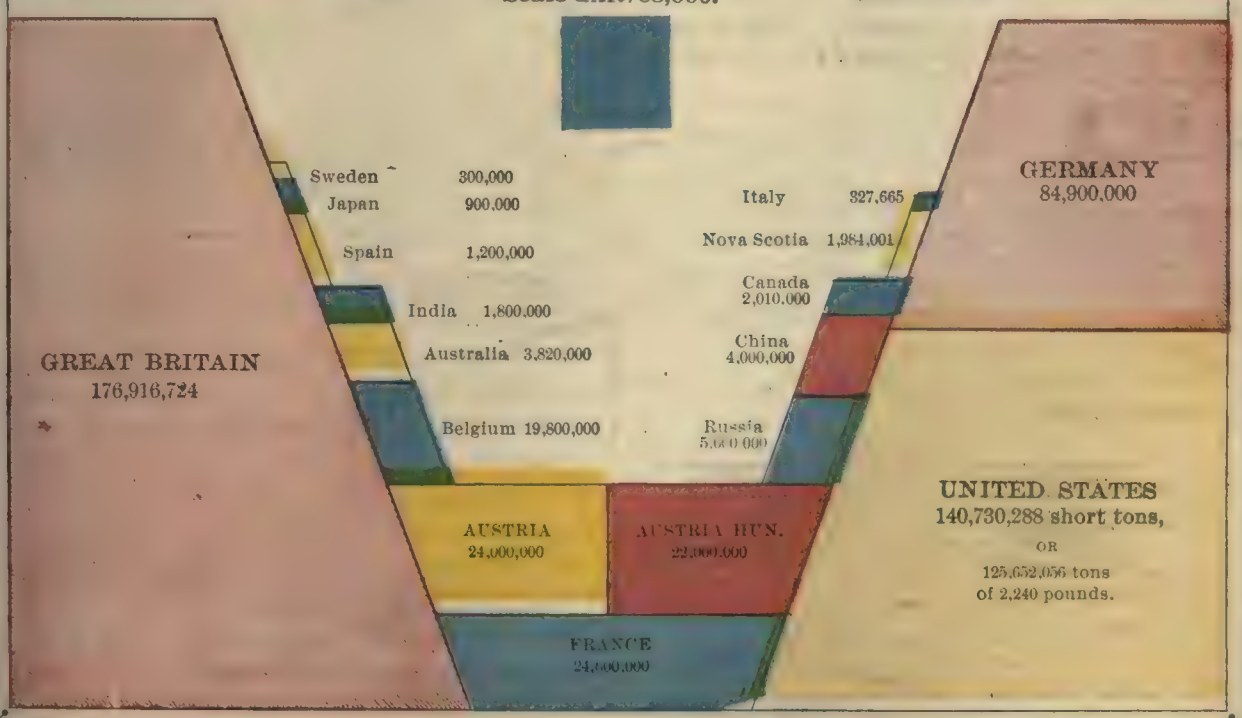
PRODUCTION OF COAL IN THE UNITED STATES IN TONS.

Scale unit, 16,600.



ONE YEAR'S PRODUCTION OF COAL IN THE WORLD. 1891.

Scale unit, 63,000.



31,000,000, while the products of other countries swells the grand total to 1,408,000,000 bushels.

SEAS.—Length in miles (approximate): Mediterranean, 2,000; Caribbean, 1,800; China, 1,700; Red, 1,400; Japan, 1,000; Black, 932; Caspian, 640; Baltic, 600; Okhotsk, 600; White, 450; Aral, 250.

SERFS.—RUSSIA: There were 47,932,000 serfs in Russia in 1861, as follows: Crown serfs, 22,851,000; appanage, 3,326,000; held by nobles, 21,755,000. The cost of redemption was as follows, in round numbers:

Mortgages remitted	$152,000,000
Government scrip	101,000,000
Paid by serfs	52,000,000
Balance due	20,000,000
Total	$325,000,000

The indemnity to the nobles was $15 per serf. The lands are mortgaged to the State till 1912. The lands ceded to Crown serfs are mortgaged only till 1901. The item of "mortgages remitted" is the amount due by nobles to the Imperial Bank and canceled.

Austrian Servitude (1840).

	Value.
Labor (two days per week)	$175,000,000
Tithe of crops, etc.	60,000,000
Male tribute, timber	7,000,000
Female tribute, spun wool	9,000,000
Fowl, eggs, butter	5,000,000
Total	$256,000,000

There were 7,000,000 serfs, whose tribute averaged more than $35 per head, which was, in fact, the rent of their farms. Some Bohemian nobles had as many as 10,000 serfs. The redemption was effected by giving the nobles 5 per cent Government scrip, and land then rose 50 per cent in value.

German Serfs.

In 1848 the State took 60,000,000 acres from the nobles, leaving them still 25,000,000 acres, and gave the former among the serfs. Indemnity as follows:

1. Government scrip, $900 for each serf family, to nobleman.
2. Land tax, $15 per annum, transferred to peasant.
3. Interest, $35 per annum for 47 years, to be paid by peasant to the State being 4 per cent on cost of redemption.

SHEEP.—The number of sheep in various countries is as follows (in round millions): River Plate, 76, Australia, 66; United States, 49; Russia, 48; United Kingdom, 28; Spain and Portugal, 25; Germany, 25; France, 23; Austria, 21; Cape Colony, 11; Algeria, 9; Italy, 7; Roumania, etc., 6; Scandinavia, 5; Canada, 3¼; Belgium and Holland, 1½; the total number being about 395,000,000.

SHIPPING.—[See diagram, page 563]. Tonnage of entries at principal ports:

Thousands Omitted.

London	8,210	Dublin	2,120
New York	7,586	Belfast	2,030
Liverpool	7,320	Hull	2,010
Marseilles	3,260	Genoa	1,640
Antwerp	2,720	Boston	1,560
Hamburg	2,315	Baltimore	1,365
Havre	2,260	Philadelphia	1,260
Glasgow	2,170		

SHOEMAKERS' MEASURE.—

Small sizes.—No. 1. 4 1-8th in.
No. 2. 4 1-8th in. + 1-3d = 4 11-24th in.
No. 3. 4 1-8th in. + 1-3d + 1-3d = 4 19-24th in.
Etc., etc., etc.

Large sizes.—
No. 1. 8 11-24th in.
No. 2. 8 11-24th in. + 1-3d = 8 19-24th in.
No. 3. 8 11-24th in + 1-3d + 1-3d = 9 1-8th in.
No. 4. 8 11-24th in. + 1-3d + 1-3d + 1-3d = 9 11-24th in
Etc., etc., etc

SICKNESS.—The ratio of sickness rises and falls regularly with death-rate in all countries, as shown by Dr. Farr and Mr. Edmonds at the London Congress of 1860, when the following rule was established:

Of 1,000 persons, aged 30, it is probable 10 will die in the year, in which case there will be 20 of that age sick throughout the year, and 10 invalids.

Of 1,000 persons, aged 75, it is probable that 100 will die in the year, in which case the sick and invalids of that age will be 300 throughout the year.

For every 100 deaths let there be hospital beds for 200 sick, and infirmaries for 100 invalids.

SILK.—Production of raw silk:

	lbs. Silk.	Value.
China	21,000,000	$[illegible]
Japan	4,400,000	20,[illegible]
Italy	6,600,000	33,[illegible]
India and Persia	2,000,000	7,[illegible]
France	1,200,000	6,[illegible]
Turkey, Spain, etc.	2,800,000	12,500,000
Total	38,000,000	$152,000,000

SILVER.—Production in 500 years:

	Tons.	Millions Dollars.	Ratio.
Mexico	78,600	3,[illegible]	49.7
Peru, etc.	72,900	2,770	37.3
United States	11,600	445	6.0
Germany	8,470	325	4.4
Austria	7,930	305	4.1
Russia	3,200	120	1.7
Various	11,200	430	5.8
Total	193,000	7,435	100.0

See also diagram, page 567.

SLAVERY.—The number of slaves emancipated in the *British Colonies* in 1834 was 780,993, the indemnity aggregating, in round figures, $100,000,000. In *Brasil*, in 1870, there were 1,510,800 slaves, 15 per cent of the entire population. These were held by 41,000 owners, averaging 37 to each owner. In 1882 the number of slaves was 1,300,000, and in 1889 slavery was abolished.

Slavery in the United States.

Year.	Number.	Year.	Number.
1790	697,900	1830	2,[illegible]
1800	893,040	1840	2,487,[illegible]
1810	1,191,400	1850	3,204,[illegible]
1820	1,538,100	1860	3,979,700

Slaves of Antiquity.

Some of the wealthy Romans had as many as 10,000 slaves. The minimum price fixed by law was $80, but after great victories they could sometimes be bought for a few shillings on the field of battle. The day's wages of a Roman gardener were about 16 cents, and his value about $300, while a blacksmith was valued at about $700, a cook at $2,000, an actress at $4,000, and a physician at $5,500.

SMALL-POX.—In the epidemic of 1881 in England the returns showed 4,478 deaths per million inhabitant—98 vaccinated to 4,380 unvaccinated, or in the proportion of 44 to 1. In the epidemic at Leipsic in 1871, the death-rate was 12,700 per million, 70 per cent of whom were unvaccinated. These figures

are by Dr. Mulhall. In Boston the proportion was 15 to 50, and in Philadelphia, 17 to 64.

During the Franco-German war the Germans lost only 263 men from this disease, the French 23,499, the former having been re-vaccinated in barracks. In the war in Paraguay, the Brazilians lost 43,000 men from malignant or black small-pox, that is, 35 per cent of their army, nine cases in ten proving fatal.

STARCH.—The percentage of starch in common grains is as follows, according to Prof. Yeomans: Rice flour, 84 to 85; Indian meal, 77 to 80; oatmeal, 70 to 80; wheat flour, 39 to 77; barley flour, 67 to 70; rye flour, 50 to 61; buckwheat, 52; peas and beans, 42 to 43; potatoes (75 per cent water), 13 to 15.

STEAM POWER.—See diagram, page 563.

STEEL.—The number of tons made for the years named is as follows: United States (1890), 4,277,071; Great Britain (1889), 3,669,960; Germany (1889), 2,046,147; France (1889), 529,021; Belgium (1889), 248,641; Austria-Hungary (1889), 398,156; Russia (1887), 222,025; Sweden (1888), 114,537; Spain (1888), 28,645; Italy (1887), 73,262; other countries (1889), 30,000. Total, 11,637,465.

Tensile Test of Steel.

BAR 8 INCHES LONG.

Sq. Inch Section.	Strain, Tons per Sq. Inch.	Extension, Inches.	Sq. Inch Section.	Strain, Tons per Sq. Inch.	Extension, Inches.
1.0000	13.93	.01	.8325	28.35	1.40
.9799	16.96	.10	.7088	27.32	2.00
.9331	23.43	.40	.5541	25.05	2 20
.8741	27.23	1.00			

Elastic Limit	17.40 tons.	Cohesion	45.21 tons.
Maximum Strain	28.35 "	Extension	27½ per cent.
Breaking Load	25.05 "	Contraction	44½ "

Taking the strength of Swedish iron at 100, the tensile strength of steel compares thus:

Swedish iron	100	Cannon steel	173
Boiler steel	118	Spring steel	202

STRENGTH.—Comparative scale:

Ordinary man	100	Farnese Hercules	362
Byron's Gladiator	173	Horse	750

Tensile and Transverse Strength.

A crushing force of 1,000 per square inch on a bar 1 inch square, and 12 inches long, gives the following ratios of strength:

	Tensile.	Transverse.		Tensile.	Transverse.
Stone	100	10	Cast iron	158	20
Glass	123	10	Timber	1,900	85

SUGAR.—Production, thousands of tons.

*Germany	606	*Russia	240	French colonies.	105
Cuba	520	Java	190	United States	90
*Austria	460	Manilla	180	Egypt, etc.	285
*France	390	Brazil	150	All beet	1,811
British colonies	340	*Holland, etc.	115	All cane	1,860

* Beet sugar.

The above detailed statement is for 1880. In 1890 the world produced about 5,360,000 tons; of which the United States produced 136,503 tons of cane sugar, 25,000 tons of maple sugar, and 2,800 tons of beet sugar.

SUICIDES.—According to religion:

	PER MILLION PERSONS. Protestant.	Catholic.	General Ratio.
United Kingdom	63	17	56
Prussia	170	52	131
Bavaria	195	69	104
Austro-Hungary	140	90	96
Switzerland	262	81	202

Legoyt says the Jews have even a lower ratio of suicide than Catholics.

TARIFF.—Import duties, general average:

	Ratio to Imports. per Cent.		Ratio to Imports. per Cent.
United Kingdom	5½	Belgium	1½
France	6½	Denmark	9
Germany	6	Sweden and Norway	12
Russia	18	Europe	7¼
Austria	5	United States	33⅓
Italy	11	Canada	15
Spain	24	Australia	13
Portugal	26	Brazil	44
Holland	1	Argentine Republic	37

See also diagram, page 546.

TEA.—Production in millions of pounds: China, 290; Japan, 35; India, 90; Java, 7; Paraguay, 10. Total, 432. Consumption: Great Britain, 167; United States, 81; Australia, 14; Russia, 37; Various, 114. Total, 403.

TELEGRAPH.—The United States have 715,591 miles of telegraph lines; Russia, 69,000; France, 59,000; Germany, 58,500; Austria-Hungary, 31,000; the United Kingdom, 27,000.

TELEPHONES.—See diagram, *Railroads*, page 578.

TEMPERATURE.—The temperature of the sea varies as follows:

Fathoms.	Equator.	38 N.	Fathoms.	Equator.	38 N.
0	77.9	70.0	800	37.1	38.1
100	55.6	63.5	1,000	36.9	37.9
200	46.6	60.6	1,200	36.7	37.1
300	42.2	60.0	1,500	36.1	36.7
500	38.9	46.7	2,700	34.7	35.2

Mountains (Humboldt).

Height, Feet.	Depression of Thermometer.	Height, Feet.	Depression of Thermometer.
3,724	14.07	10,790	34.72
6,740	23.31	15,744	49.62
9,029	30.07	19,286	57.38

Frost.

1234. Mediterranean frozen; traffic with carts.
1420. Bosphorus frozen.
1468. Wine at Antwerp sold in blocks.
1658. Swedish artillery crossed the Sound.
1766. Snow knee-deep at Naples.
1789. Fahrenheit thermometer marked 23° below zero at Frankfort, and 36° at Basle.
1809. Moscow, 48° below zero, greatest cold recorded there: mercury frozen.
1829. Jakoutsk, Siberia, 73° below zero on 25th January: greatest cold on any record.
1846. December marked 25° below zero at Pontarlier: lowest ever marked in France.
1855. Fires on Serpentine, Hyde Park.
1864. January, Fahrenheit stood at zero in Turin: greatest cold recorded in Italy.

Captain Parry, in his Arctic explorations, suffered for some time 51 degrees below zero. Frost is diminishing in Canada with the increase of population, as shown by the fact that Hudson's Bay was closed, from 1828-'37, 184 days per annum, and from 1871-'80 only 179 days per annum.

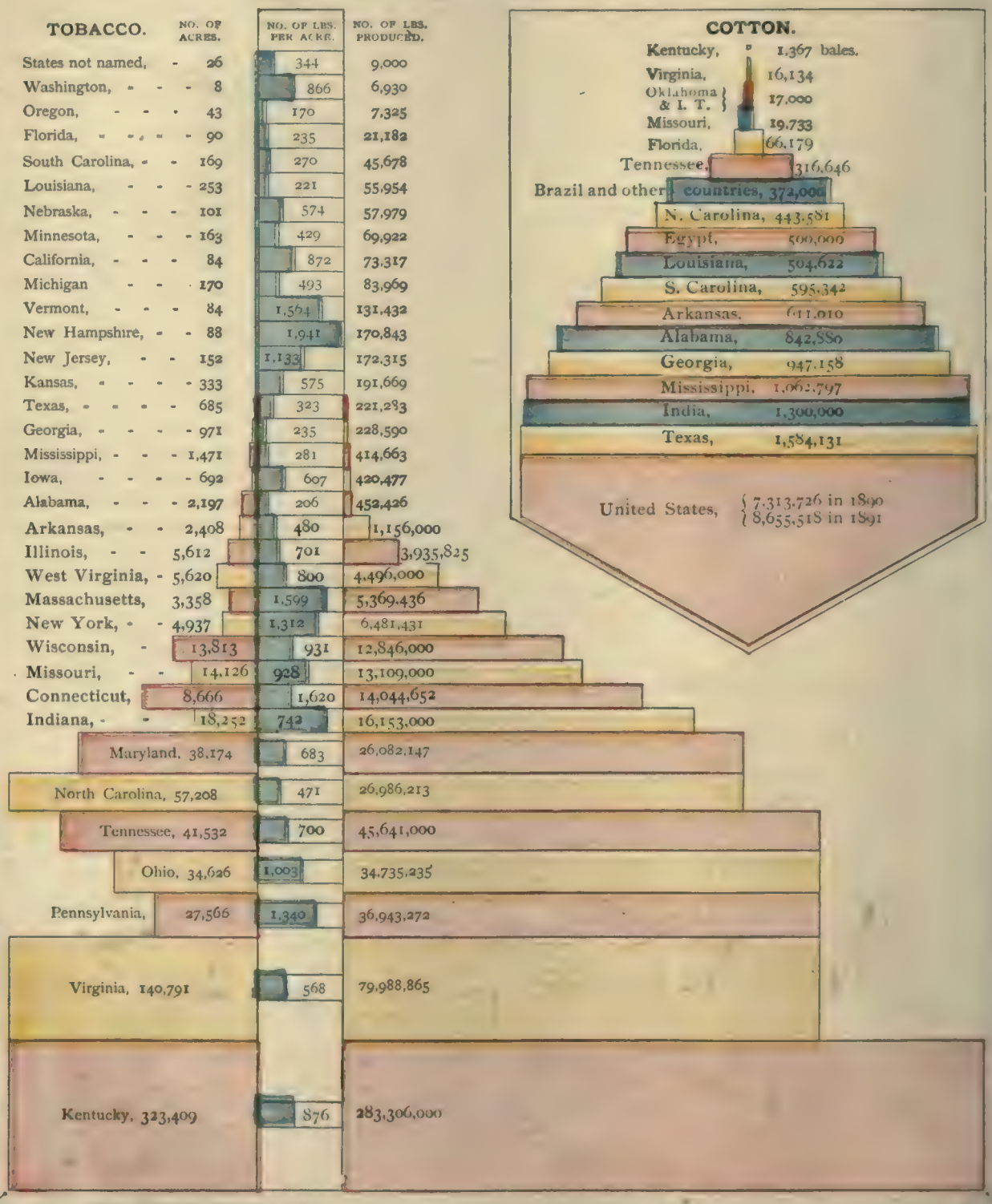
Summer Heat in Various Countries.

The following figures show the extreme summer heat in the various countries of the world:

Bengal and the African desert, 150° Fahrenheit; Senegal and Guadaloupe, 130°; Persia, 125°; Calcutta and Central America, 120; Afghanistan and the Arabian desert, 110°; Cape of Good Hope and Utah, 105°; Greece, 104°; Arabia, 103°; Montreal, 103°; New York, 102°; Spain, India, China,

The World's Yearly Production of Cotton and Tobacco.

(From Latest Governmental Reports.)

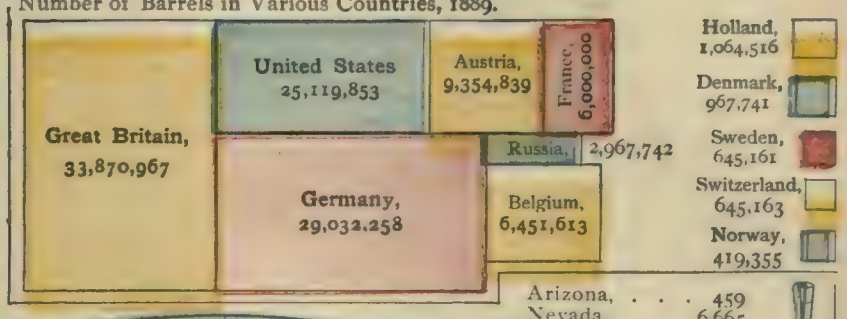


UNIV
CALIF

BEER PRODUCTION.

1891.

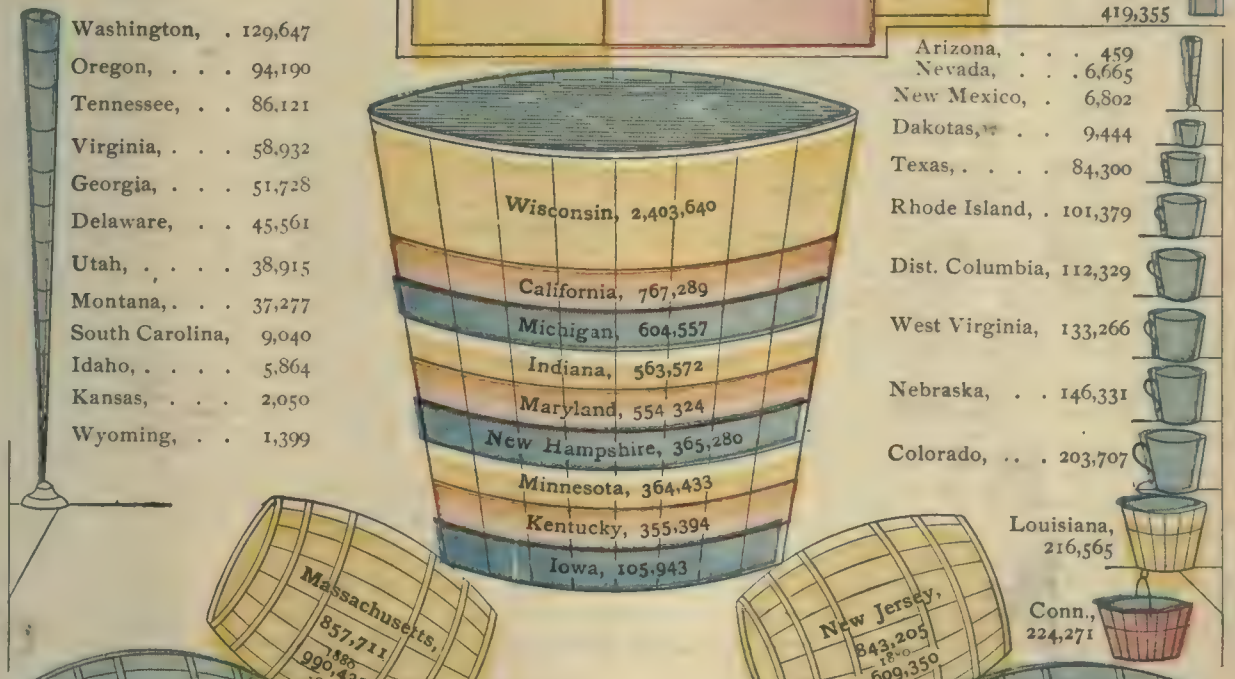
Number of Barrels in Various Countries, 1889.



Number of barrels brewed in U. S., year ending May 1, 1891,

30,021,079

31 gallons to the barrel.



Washington,	129,647
Oregon,	94,190
Tennessee,	86,121
Virginia,	58,932
Georgia,	51,728
Delaware,	45,561
Utah,	38,915
Montana,	37,277
South Carolina,	9,040
Idaho,	5,864
Kansas,	2,050
Wyoming,	1,399

Arizona,	459
Nevada,	6,665
New Mexico,	6,802
Dakotas,	9,444
Texas,	84,300
Rhode Island,	101,379
Dist. Columbia,	112,329
West Virginia,	133,266
Nebraska,	146,331
Colorado,	203,707
Louisiana,	216,565
Conn.,	224,271

and Jamaica, 100°; Sierra Leone, 94°; France, Denmark, St. Petersburg, Shanghai, the Burman Empire, Buenos Ayres, and the Sandwich Islands, 90°; Great Britain, Siam, and Peru, 85°; Portugal, Pekin, and Natal, 80°; Siberia, 77°; Australia and Scotland, 75°; Italy, Venezuela, and Madeira, 73°; Prussia and New Zealand, 70°; Switzerland and Hungary, 66°; Bavaria, Sweden, Tasmania, and Moscow, 65°; Patagonia and the Falkland Isles, 55°; Iceland, 45°; Nova Zembla, 34°.

THERMOMETER.—

	Reaumur.	Centigrade.	Fahrenheit.
Freezing point	0	0	32
Vine cultivation	8	10	50
Cotton cultivation	16	20	68
Temperature of Brazil	24	30	87
Hatching eggs	32	40	104
	40	50	122
	48	60	140
	56	70	158
	64	80	176
	72	90	194
Water boils	80	100	212

TOBACCO.—See diagram, page 574.

TUG-BOATS.—One tug on the Mississippi can take, in six days, from St. Louis to New Orleans, barges carrying 10,000 tons of grain, which would require 70 railway trains of fifteen cars each. Tugs in the Suez Canal tow a vessel from sea to sea in 44 hours.

VELOCITY.—The average velocity of various bodies is here given:

	Per hour.		Per sec.
A man walks	3 miles,	or	4 feet.
A horse trots	7 "	or	10 "
A horse runs	20 "	or	29 "
Steamboats move	18 "	or	26 "
Sailing vessels move	10 "	or	14 "
Slow rivers flow	3 "	or	4 "
Rapid rivers flow	7 "	or	10 "
A moderate wind blows	7 "	or	10 "
A storm moves	36 "	or	52 "
A hurricane moves	80 "	or	117 "
A rifle ball moves	963 "	or	1,466 "
Sound moves	743 "	or	1,142 "
Light moves	192,000 miles per second.		
Electricity moves	288,000 " " "		

Velocity of a Bullet.

	Grains, Powder.	Velocity, Feet per second.
Smooth-bores	110	1,500
Rifle	60	963

WAGES AND COST OF LIVING.—From the report of the Secretary of State on the state of labor in Europe, derived from facts reported by the United States Consuls corrected to 1892, the following tables are gleaned:

Comparative Rates of Weekly Wages Paid in Europe and in the United States.

	France.	Germany.	Italy.	Great Britain.	United States.	
					New York.	Chicago.
	₣	$	$	$	$	$
Bakers	5.55	3.50	3.90	6.50–6.60	5–8	8–12
Blacksmiths	5.45	3.55	3.94	7.04–8.12	10–14	9–12
Bookbinders	4.85	3.82	3.90	6.50–7.83	12–18	9–20
Bricklayers	4.00	3.60	3.45	7.58–9.03	12–15	9–10½
Cabinet-makers	6.00	3.97	3.95	7.70–8.48	9–13	7–15
Carpenters and Joiners	5.42	4.00	4.18	7.33–8.25	9–12	7½–12
Farm Laborers	3.15	2.87	3.50	3.40–4.25	.....	.....
Laborers, Porters, etc	.....	2.92	2.60	4.50–5.00	6–9	5½–9
Painters	4.90	3.92	4.60	7.25–8.16	10–16	6–12
Plasterers	.....	3.80	4.35	7.68–10.13	10–15	9–15
Plumbers	5.50	3.60	3.90	7.13–8.46	12–18	12–20
Printers	4.70	4.80	3.90	7.52–7.75	8–18	12–18
Shoemakers	4.75	3.12	4.32	7.35	12–18	9–18
Tailors	5.10	3.58	4.30	5.00–7.30	10–18	6–18
Tinsmiths	4.40	3.65	3.60	6.00–7.30	10–14	9–12

Comparative Retail Prices of the Necessaries of Life.

	France.	Germany.	Italy.	Great Britain.	United States.	
					New York.	Chicago.
	Cts.	Cents.	Cents.	Cents.	Cents.	Cents.
Beef, Roast....lb.	22	22	20	[illegible]	12–16	8–12½
Corned...lb.	16	13	12	18–20	8–12	4–7
Beans.....qt.	....	10	13	9	7–10	5–9
Bread.....lb.	3	3–7	6	3½–4½	4–4½	4–4½
Butter.....lb.	25	22	28	29–38	25–32	16–40
Coal.....ton.	....	$4.25	$11.00	$2.65–$4.10	$3–$5 25	$3–$6.7
Codfish.....lb.	....	.....	[illegible]	6–8	6–7	5–9
Coffee.....lb.	30	35	32	28–50	20–30	16–40
Eggs.....doz.	18	20	[illegible]	14–30	25–30	16–24
Flour.....lb	4	5½	10	3½–4½	3–4	2½–4½
Lard.....lb	20	21	22	12–18	10–12	6–10
Milk.....qt	....	4	7	5–9	8–10	3–6
Mutton.....lb.	16	14½	15	16–17	9–10	5–12½
Oatmeal.....lb	....	[illegible]	.....	3½–4½	4–5	4–5
Pork, fresh....lb	14	17	13	10–16	8–10	4–5
" salted....lb.	14	17	18	10–16	8–10	6–12
" Bacon...lb.	20	20	22	12–16	8–10	7–12
" Sausage, lb.	16	19	20	18	8–10	6–10
Potatoes....bushel	50	50	$1.15	68–82.00	$1.40–$1.60	60–80
Rice.....lb.	....	9	6	3½–8	8–10	5–10
Soap.....lb.	....	10	4	5½–9	6–7	3–8
Sugar.....lb.	....	11	8½	5½–10	8–10	7–10
Tea.....lb.	....	75	.....	4 88	50–60	25–$1.00

WAR.—The cost of recent wars, according to figures furnished by the London Peace Society, is as follows:

Crimean war	£340,000,000
Italian war of 1859	[illegible]
American civil war—North	940,000,000
" " " —South	460,000,000
Schleswig-Holstein war	7,000,000
Austrian and Prussian war, 1866	60,000,000
Expeditions to Mexico, Morocco, Paraguay, etc., (say only)	40,000,000
Franco-Prussian war	500,000,000
Russian and Turkish war, 1877	210,000,000
Zulu and Afghan wars, 1879	30,000,000
	£2,653,000,000

This would allow $10 for every man, woman and child on the habitable globe. It would make two railways all round the world at $250,000 per mile each.

Summary of Losses from War in Twenty-Five Years (1855–80.)

	Killed in battle, or died of wounds and disease.
Crimean war	750,000
Italian war, 1859	45,000
War of Schleswig-Holstein	3,000
American civil war—the North	280,000
" " " —the South	520,000
War between Prussia, Austria and Italy, in 1866	45,000
Expeditions to Mexico, Cochin China, Morocco, Paraguay, etc	65,000
Franco-German war of 1870-71—France	155,000
" " " " " —Germany	60,000
*Russian and Turkish war of 1877	225,000
Zulu and Afghan wars, 1879	40,000
Total	2,188,000

Length and Cost of American Wars.

Wars.	Length.	Cost.
1. War of the revolution	7 years—1775-1782	$135,143,703
2. Indian war in Ohio territory	1790	.....
3. War with the Barbary States	1803-1804	.....
4. Tecumseh Indian war	1811	.....
5. War with Great Britain	3 years—1812-1815	107,159,063
6. Algerine war	1815	.....
7. First Seminole war	1817	.....
8. Black Hawk war	1832	.....
9. Second Seminole war	1845	.....
10. Mexican war	2 years—1846-1848	66,500,000
11. Mormon war	1856	.....
12. Civil war	4 years—1861-1865	6,500,000,000

*About thirty thousand skeletons of Russian and Turkish soldiers were shipped to England in 1881, as manure, in the form of bones or bone-dust.

Quota of Troops Furnished by the States and Territories During the Civil War.

States and Territories.	Troops furnished.	Colored troops furnished.	Number of men drafted.	Per cent of troops to population.
New England States	375,131	7,916	103,807	12.0
Middle States	914,164	13,922	362,686	12.2
Western States and Territories	1,098,968	12,711	203,924	13.6
Pacific States	19,379	.....	.....	4.3
Border States	301,062	45,184	106,412	8.3
Southern States	54,137	63,571	.....	.6
Indian Nation	3,530	.....	.....	.....
*Colored troops	93,441	.....	.....	.....
Grand total	†2,859,132	143,304	776,829	9.1
At large	.....	733	.....	.....
Not accounted for	.....	5,083	.....	.....
Officers	.....	7,122	... ..	.....
		156,240		

WAR EXPENDITURE.—See diagrams, pages 546, 563.

WATER.—One cubic foot = 62½ lbs., or 6¼ gallons. One cubic foot sea water = 64 lbs., or 6¼ gallons. One gallon of water = 10 lbs., or 277 cubic inches. One inch of rainfall equals 14,500,000 gallons per square mile. Eight cubic feet of snow will produce one cubic foot of water. Current requires a minimum fall of one-tenth inch per mile.

WATER-POWER.—Niagara = ten million cubic feet per minute, say three million horse-power nominal, or nine million real.

In the United States there are 51,000 water-wheels, with 1½ million horse-power aggregate.

WEALTH OF NATIONS.—The wealth of the principal nations of the world is thus given by Mulhall. The figures represent millions sterling:

	Land and Forest.	Cattle.	Railways.	Public Works.	Houses.	Furniture.	Merchandise.	Bullion.	Shipping.	Sundries.	Total.
United States	2,150	378	1,190	527	2,780	1,385	155	157	60	713	9,495
United Kingdom	1,880	235	770	547	2,280	1,140	350	143	120	1,255	8,720
France	2,930	212	494	590	1,890	945	165	301	15	518	8,060
Germany	2,420	231	467	442	1,470	735	155	108	15	280	6,323
Russia	1,940	345	309	224	880	440	60	34	7	104	4,343
Austria	1,590	205	255	188	770	385	64	20	4	132	3,613
Italy	905	56	108	131	656	328	48	45	9	65	2,351
Spain	740	57	79	60	340	170	22	41	7	77	1,593
Holland	220	33	27	125	116	58	61	17	4	326	987
Belgium	270	30	61	41	140	70	58	29	2	105	806
Sweden	444	42	26	32	62	31	14	4	5	35	695
Canada	230	35	72	30	140	70	18	2	12	41	650
Mexico	125	32	12	12	240	120	20	10	..	67	630
Australia	192	66	58	28	108	54	52	14	4	14	590
Portugal	170	11	12	15	80	40	8	14	1	21	371
Denmark	216	31	10	11	44	22	10	3	3	16	366
Argentine Republic	122	54	16	6	72	36	12	1	..	13	332
Switzerland	110	21	33	30	70	35	10	7	..	8	324
Norway	173	21	6	13	24	12	7	1	13	12	282
Greece	112	6	..	7	44	22	4	6	2	8	211
Total	16,939	2,101	4,005	3,059	12,206	6,098	1,292	957	283	3,810	50,750

WEIGHT AND STATURE OF MAN.—

Age.	MALES. Feet.	MALES. Lbs.	FEMALES. Feet.	FEMALES. Lbs.
0 Years	1.64	7.06	1.62	6.42
2 "	2.60	25.01	2.56	23.53
4 "	3.04	31.38	3.00	28.67
6 "	3.44	38.80	3.38	35.29
9 "	4.00	49.95	3.92	47.10
11 "	4.36	59.77	4.26	56.57
13 "	4.72	75.81	4.60	72.65
15 "	5.07	96.40	4.92	89.04
17 "	5.36	116.56	5.10	104.34
18 "	5.44	127.59	5.13	112.55
20 "	5.49	132.46	5.16	115.30
30 "	5.52	140.38	5.18	119.82
40 "	5.52	140.42	5.18	121.81
50 "	5.49	139.96	5.04	123.86
60 "	5.38	136.07	4.97	119.76
70 "	5.32	131.27	4.97	113.60
80 "	5.29	127.54	4.94	108.80
90 "	5.29	127.54	4.94	108.81
Mean weight	.....	103.66	... ...	93.73

The average weight of a male infant at birth, it will be seen, is a little over 7 lbs.; of a female infant, a little less than 6½ lbs. Children lose weight during the first three days after birth; at the age of a week they sensibly increase, and at the end of one year they triple their weight.

WHEAT.—See diagram, *Yearly Wheat Crop*, page 566.

WIND.—Velocity and pressure:

Feet per Second.	Miles per hour.	Pressure—lbs. per sq. foot.	Feet per Second.	Miles per hour.	Pressure—lbs. per sq. foot.
5	3½	1 oz.	80	54	16 lbs.
10	7	4 oz.	90	61	20¼ "
20	14	1 lb.	100	68	25 "
30	20	2¼ lbs.	110	75	30¼ "
40	27	4 "	120	82	36 "
50	34	6¼ "	130	88	42¼ "
60	41	9 "	140	95	49 "
70	48	12¼ "	150	102	56 "

WINE.—See Alcoholic Liquors.

WOMEN WORKERS.—In the United States there are said to be women workers as follows: Artists, 2,061; authors, 320; barbers, 2,902; commercial travelers, 272; dressmakers, milliners, etc., 281,928; journalists, 288; lawyers, 75; musicians, 13,181; physicians, 2,432; preachers, 165; printers, 3,456; tailors 52,098; teachers, 154,375; telegraphers, 1,131.

*This gives colored troops enlisted in the States in rebellion; besides this, there were 92,576 colored troops, included (with the white soldiers) in the quotas of the several states; the second column gives the aggregate of colored, but many enlisted South were credited to the Northern states.

†This is the aggregate of troops furnished for all periods of service—from three months to three years' time. Reduced to a uniform three years' standard, the whole number of troops enlisted amounted to 2,320,272.

AVERAGE YEARLY WAGES

OF THE

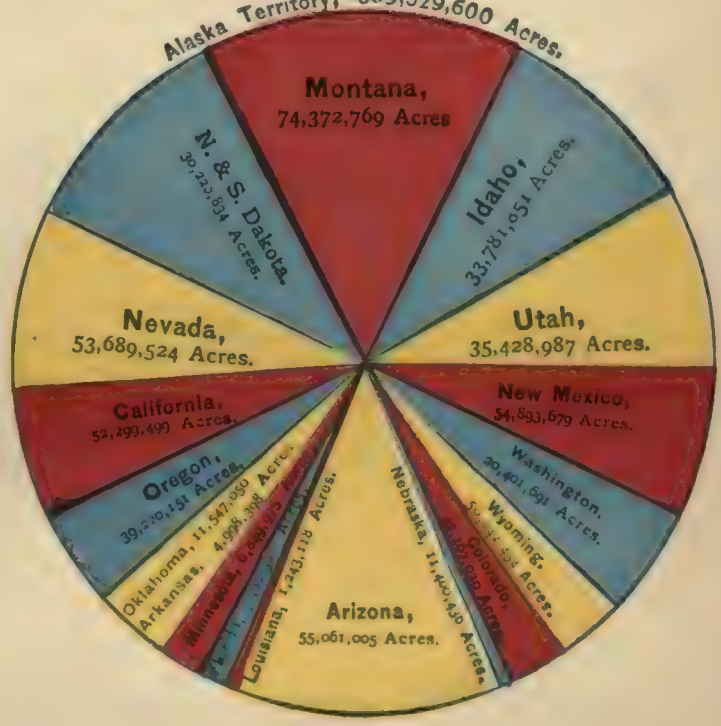
ARTISAN CLASSES.

TRADES.	No. EMPLOYED.	AVERAGE YEARLY WAGES.	TOTAL YEARLY WAGES.
Hosiery and Knit Goods	28,885	$232	$6,701,475
Cotton Goods	186,472	245	45,014,419
Men's Clothing	[illegible]	296	45,940,353
Woolen Goods	86,501	300	25,836,292
Mixed Textiles	43,373	308	13,316,753
Tobacco, Cigars and Cigarettes	53,297	317	18,464,562
Paper	24,422	349	8,525,355
Book Bind'g and Blank Book Making	10,612	371	3,927,349
Glass	24,177	379	9,144,100
Boots and Shoes	133,819	381	50,995,144
Hats and Caps	17,240	385	6,635,522
Leather Tanning	23,812	387	9,204,243
Agricultural Implem'ts	39,590	388	15,359,610
Cars, Railroad and Street	14,232	388	5,507,753
Carriages and Wagons	45,394	400	18,088,615
Hardware	16,901	407	6,846,913
Furniture	48,717	418	20,388,794
Bread and Bakery Products	22,488	419	9,411,328
Cutlery and Edge Tools	10,519	422	4,447,349
Leather Currying	11,353	428	4,845,413
Foundries and Machine Shops	[illegible]351	451	65,992,133
Carpentry	54,138	454	24,562,077
Malt Liquors	26,220	465	12,198,053
Marble and Stone	21,471	477	10,238,885
Jewelry	12,697	507	6,441,688
Printing and Pub.	58,178	[illegible]	30,591,697
Musical Instruments	6,573	[illegible]	4,003,193

OUR PUBLIC DOMAIN.

Unoccupied Lands and Where they Lie.

JANUARY, 1892.



Besides the above, there are in Alabama, Iowa, Kansas, Michigan, Mississippi, Missouri, and Wisconsin, 5,762,515 acres; making a total, exclusive of Alaska, of 579,664,683 acres. The Cherokee Strip is embraced under Oklahoma. The aggregate includes 356,559 acres of mineral land in Nevada.

FOOD SUPPLY
OF
PRINCIPAL COUNTRIES.

NATION.	VALUE OF GRAIN AND MEAT.	TOTAL VALUE.
Belgium and The Netherlands		$ 170,725,000
Canada	$ 165,000,000	170,775,000
Scandinavia	110,000,000	257,175,000
Australia	170,000,000	280,600,000
Rumania		302,000,000
Italy		411,625,000
Spain and Portugal	225,000,000	471,750,000
Great Britain	325,000,000	668,000,000
Austria	340,000,000	871,250,000
Germany	310,000,000	1,014,875,000
France	555,000,000	1,090,500,000
Russia	645,000,000	1,870,375,000
United States	805,000,000	2,016,750,000
	1,330,000,000	
	1,033,000,000	



FARM WAGES,

By the Month and by the Day, in Harvest.

WITHOUT BOARD.		STATES.	WITH BOARD.	
Wages during Harvest.	Monthly Wages by the Year.		Monthly Wages by the Year.	Wages during Harvest.
$1.08		South Carolina		$ .78
1.20	12.86	North Carolina	8.80	.85
1.10	12.86	Georgia	8.70	.80
1.05		Alabama		.80
1.30	13.75	Tennessee	9.40	1.00
1.27	13.06	Virginia	9.17	.99
1.23		Mississippi		.95
1.52	16.31	Maryland	9.89	1.15
1.12	16.64	Florida	10.20	.80
1.10		Louisiana		.85
1.60	18.20	Delaware	12.50	1.25
1.54	18.20	Kentucky	11.75	1.18
1.34		Arkansas		1.02
1.30	19.16	West Virginia	12.46	1.00
1.39	20.20	Texas	14.63	1.08
1.59		Missouri		1.23
1.73	22.88	Pennsylvania	14.21	1.50
1.89	23.14	Indiana	15.65	1.58
1.75		Vermont		1.35
1.89	23.63	New York	15.36	1.47
1.70	23.85	Kansas	15.87	1.35
1.91		Illinois		1.54
2.09	24.25	New Jersey	14.30	1.74
1.95	24.45	Nebraska	16.20	1.57
1.79		Ohio		1.41
1.52	24.75	Maine	16.75	1.22
1.71	25.25	New Hampshire	16.72	1.35
2.13		Michigan		1.76
2.25	26.21	Iowa	17.95	1.81
2.50	26.21	Wisconsin	17.90	2.10
2.61		Minnesota		2.16
1.60	27.75	Rhode Island	17.00	1.30
1.65	27.90	Connecticut	17.37	1.33
1.75		Massachusetts		1.35
1.92	33.50	Oregon	24.75	1.50
2.21	36.50	Colorado	27.08	1.80
2.20		California		1.86
	The general average for the United States in 1891 was $18.33.		The general average for the United States in 1891 was $12.45.	

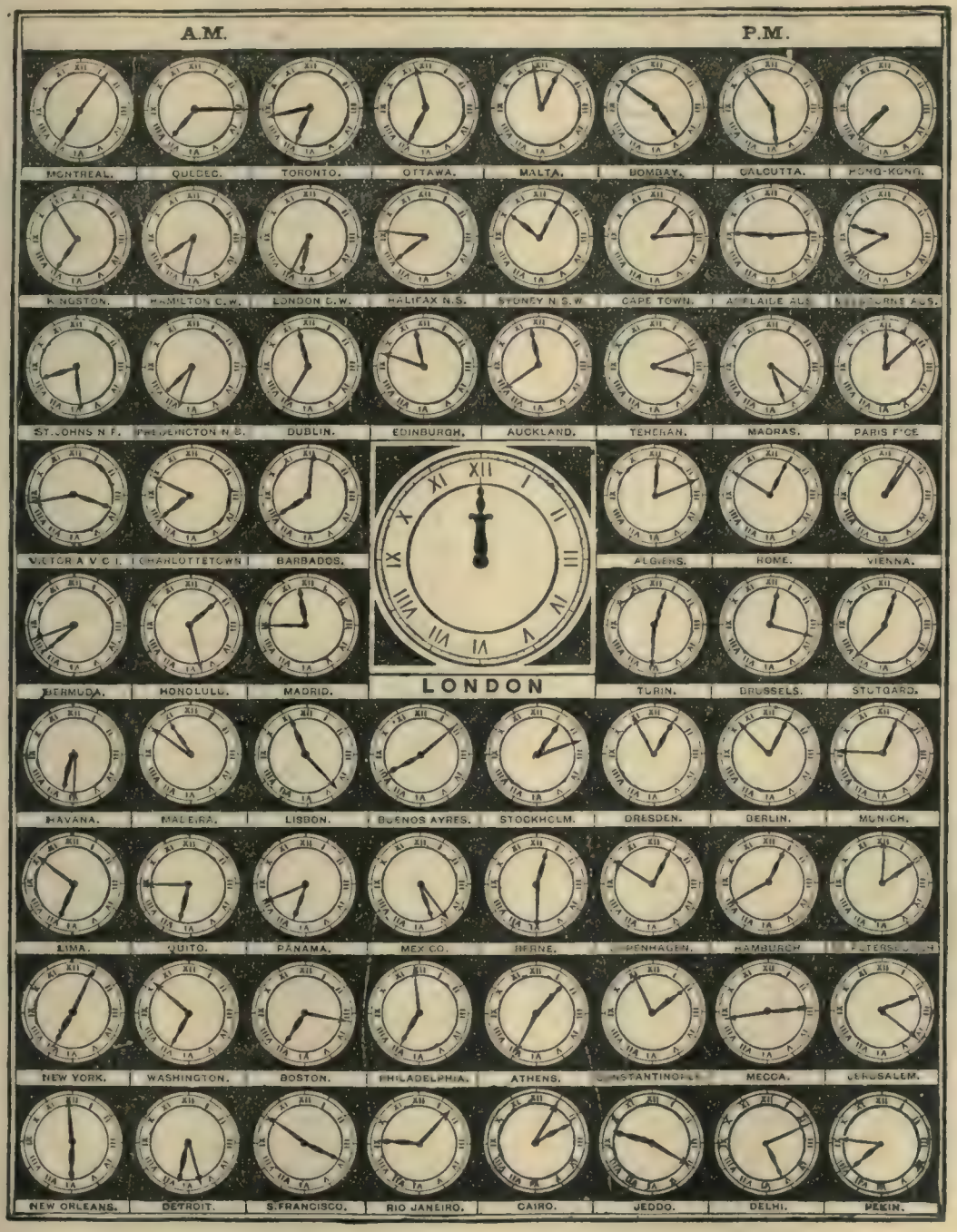
RAIL ROADS. 1891.



Number of miles in the United States.	
Illinois	10,214
Iowa	8,366
Pennsylvania	8,453
New York	7,661
Ohio	7,911
Texas	8,613
Kansas	8,806
Indiana	5,971
Michigan	7,243
Missouri	6,004
Wisconsin	5,584
Minnesota	5,166
Dakota, N. & S.	4,427
Nebraska	5,295
Georgia	4,532
California	4,356
Colorado	4,176
Virginia	3,160
Alabama	3,314
N. Carolina	3,001
Tennessee	2,752
Arkansas	2,196
Kentucky	2,746
Mississippi	2,332
Massachusetts	2,091
New Jersey	2,047
Florida	2,471
S. Carolina	2,194
Louisiana	1,759
New Mexico	1,596
Maryland	1,231
Oregon	1,428
Maine	1,338
W. Virginia	1,328
Utah	1,326
Montana	2,181
New Hampshire	1,145
Arizona	1,098
Connecticut	1,007
Nevada	925
Vermont	965
Washington	2,090
Idaho	977
Wyoming	1,011
Oklahoma & Ind.T.	1,258
Delaware	323
Rhode Island	213
Dist. of Columbia	21

Number of miles in the World.	
Tasmania	303
Greece	334
Japan	910
Cuba	871
Portugal	1,039
Algeria	1,040
Turkey	1,170
Denmark	1,208
S. Am. Reps.	1,214
Egypt	1,276
Chili	1,750
Netherland	1,520
Queensland	1,555
Cape Colony	1,599
Peru	1,600
Balkan Countr's	1,608
Victoria	1,753
New Zealand	1,815
Switzerland	1,882
New S. Wales	1,935
Belgium	2,740
Java	3,498
Mexico	5,010
Argentine Rep.	5,550
Brazil	5,580
Spain	5,932
Sweden & Nor.	5,165
Italy	6,167
Canada	12,880
India	15,250
Austro-Hungary	14,301
Russia	18,950
Gt. Britian & Ireland	19,332
Germany	23,784
France	20,580
United States	166,817

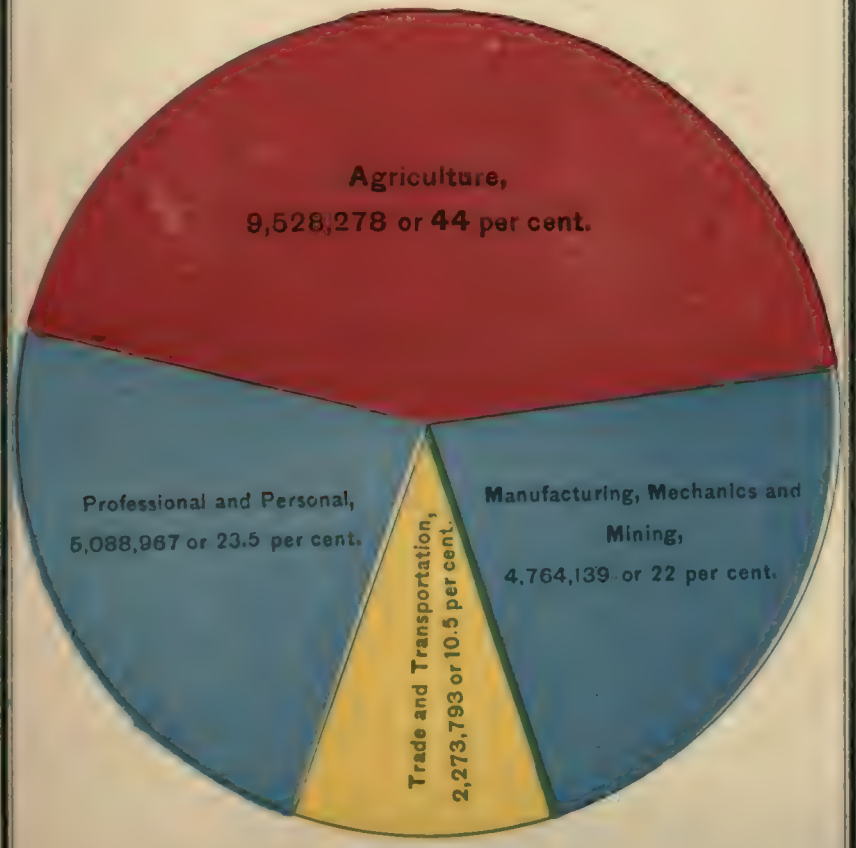
The Clocks of the World.



NUMBER ENGAGED

In all Gainful Occupations, and the Relative Percentage in each.

TOTAL LABORING POPULATION, 21,655,177



DISPLACEMENT OF MANUAL LABOR BY MACHINERY,

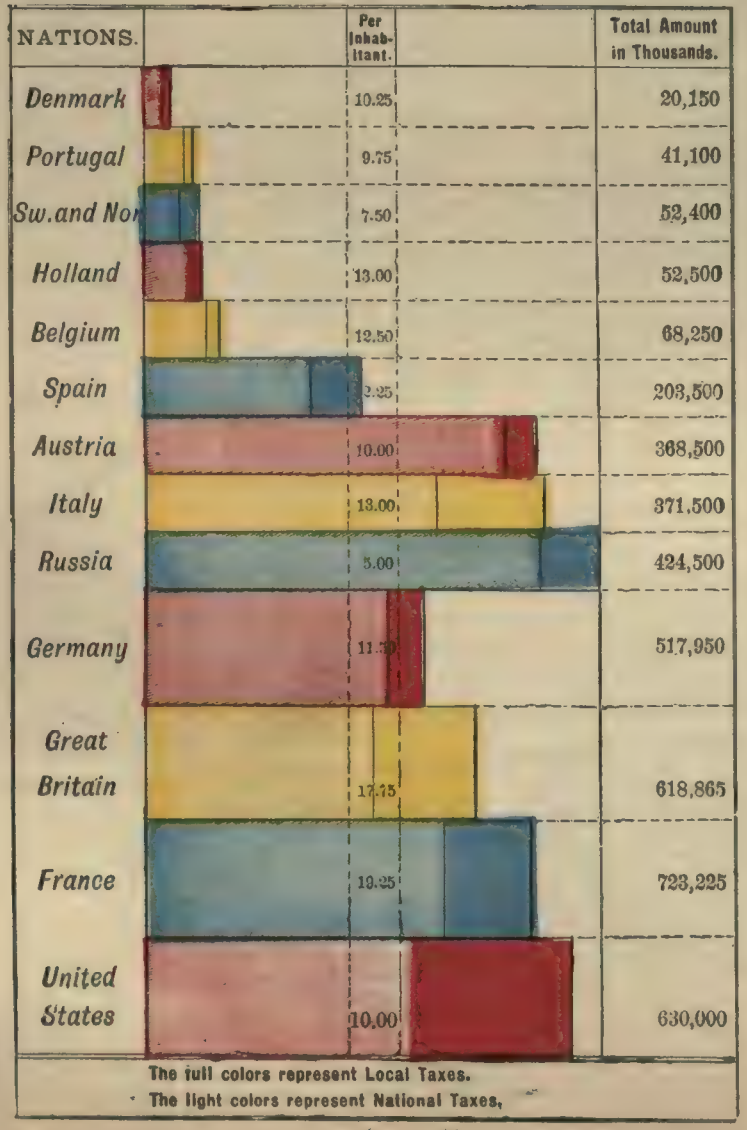
IN VARIOUS INDUSTRIES.

INDUSTRY.	No. of Employes Required with Machinery.	PROPORTION DISPLACED.	No. of Employes Required without Machinery.
Wall Paper	1	99 in every 100	100
Silk (Weaving)	5	95 " " "	100
Paper	5 5/17	94 2/17 " " "	100
Woolen M'f'r's	5 5/17	94 2/17 " " "	100
Silk (Winding)	10	90 " " "	100
Hats (Stiff)	11 1/9	88 8/9 " " "	100
Tobacco	12 1/2	87 1/2 " " "	100
Glass Jars	16 2/3	83 1/3 " " "	100
Brooms	20	80 " " "	100
Boots and Shoes	20	80 " " "	100
Farm Labor	20	80 " " "	100
Flour	25	75 " " "	100
Cotton M'f'r's	33 1/3	66 2/3 " " "	100
Hats (Medium)	33 1/3	66 2/3 " " "	100
Wooden Ware	33 1/3	66 2/3 " " "	100
Carriages	34 2/7	65 5/7 " " "	100
Saws	40	60 " " "	100
Furniture	50	50 " " "	100
Railroad Supplies	50	50 " " "	100
Rubber Boots and Shoes	50	50 " " "	100
Soap	50	50 " " "	100
Firebrick	60	40 " " "	100
Silk (Gen'l M'f'r)	60	40 " " "	100
Machinery	75	25 " " "	100
Brick Making	90	10 " " "	100

COST OF GOVERNMENT

AS SHOWN BY

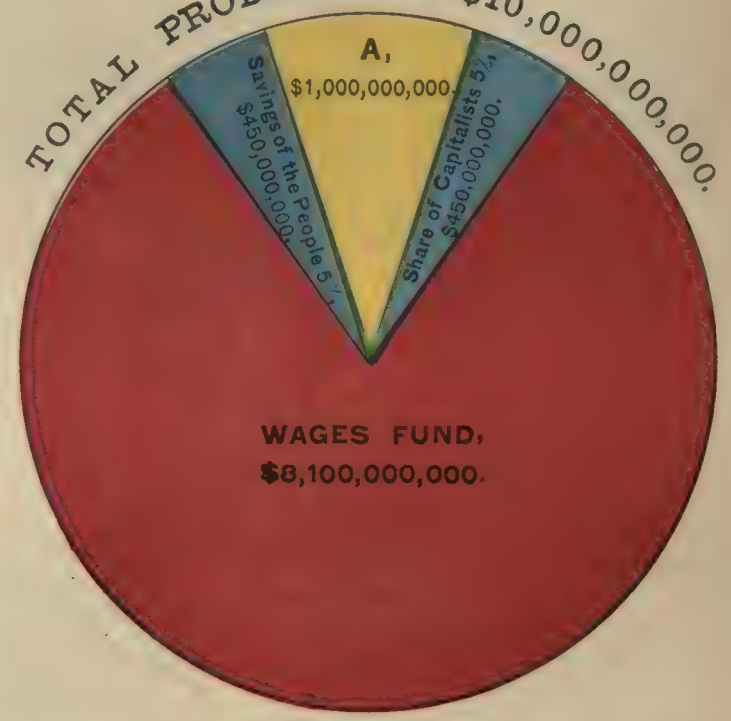
The Taxation of various Nations.



TOTAL ANNUAL PRODUCTION.

Share of Capital, Savings of the People, and Entire Annual Wage Fund

"A"—Domestic consumption on farms and domestic product of families, which is not exchanged or does not come into the commercial product, $1,000,000,000.



In the above Tabulation the "Wages Fund" is calculated from official statistics, and may be divided as follows:

FIRST.

Share of 1,100,000 persons assumed to be engaged in mental and administrative work.		$1,100,000,000
This class may be further subdivided: 200,000 teachers in lower grade schools, scientists, authors, artists, young lawyers, clergymen and others in similar employments, at an average of $550	$ 110,000,000	
900,000 merchants, tradesmen, officials, superintendents, etc., at an average of $1,100	990,000,000	
Total, as above		$1,100,000,000

SECOND.

Share of 16,300,000 farmers, laborers, mechanics, artisans, operators, clerks, dressmakers and other wage-workers, at an average of $432	7,000,000,000
Grand Total, as shown in diagram	$8,100,000,000

THE NEW SYSTEM OF STANDARD TIME.



Difference between Old and New Standards at Points which have been Established Standards under the Old System. (*f.* faster. *s.* slower.)

Compared with Eastern Time: Albany, N. Y., 5 minutes f.; Baltimore, Md., 6 m. s.; Bath, Me., 20 m. f.; Boston, Mass., 16 m. f.; Charleston, S. C., 15 m. s.; Detroit, Mich., 32 m. s.; Hamilton, Ont., 19 m. s.; Montreal, Que., 6 m. f.; New London, Conn., 12 m. f.; New York City, 4 m. f.; **Philadelphia, Pa.**, 1 m. s.; Port Hope, Can., 14 m. s.; Port Huron, Mich., 30 m. s.; Portland, Me., 19 m. f.; Providence, R. I., 14 m. f.; Richmond, Va., 10 m. s.. Savannah, Ga., 24 m. s.; Toronto, Can., 17 m. s.; Washington, D. C., 8 m. s. ***Compared with Central Time:*** Atchison, Kan., 24 m. s.; Atlanta, Ga., 22 m. f.; Chicago, Ill., 9 m. f.; Cincinnati, O., 22 m. f.; Columbus, O., 28 m. f.; Detroit, Mich., 28 m. f.; Dubuque, Ia., 3 m. s.; **Hannibal, Mo.**, 1 m. s.; Houston, Tex., 24 m. s.; Indianapolis, Ind., 16 m. f.; Jefferson City, Mo., 9 m. s.; Kansas City, Mo., 19 m. s.; Louisville, Ky., 18 m. f.; Macon, Ga., 29 m. f.; Minneapolis, Minn., 13 m. s.; Mobile, Ala., 8 m. f.; Nashville, Tenn., 13 m. f.; **New Orleans, La.**, exactly the same. Omaha, Neb., 24 m. s.; Port Huron, Mich., 30 m. f.; **St. Louis, Mo.**, 1 m. s.; St. Paul, Minn., 12 m. s.; Savannah, Ga., 36 m. f.; Selma, Ala., 12 m. f.; Sioux City, Ia., 26 m. s.; Terre Haute, Ind., 10 m. f.; Vicksburg, Miss., 3 m. s.; Winona, Minn., 7 m. s. ***Compared with Mountain Time:*** **Denver, Col.**, exactly the same; Laramie, W. T., 6 m. s.; Salt Lake City, U. T., 28 m. s. ***Compared with Pacific Time:*** Kalama, Wash. T., 10 m. s.; Portland, Or., 10 m. s.; **San Francisco, Cal.**, 10 m. s ***Intercolonial Time,*** touching only Halifax, St. John and Quebec, is omitted.

STATISTICS OF POPULATION.

A TABULAR STATEMENT OF THE

COMPARATIVE GROWTH OF THE UNITED STATES.

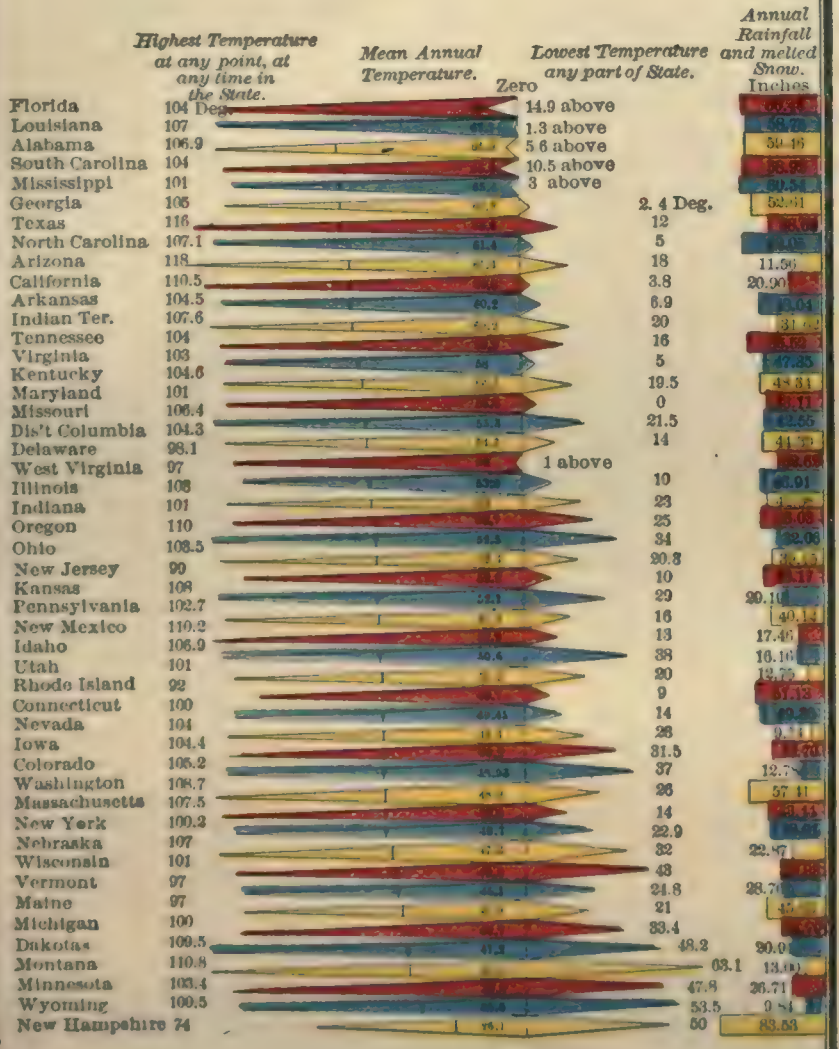
SHOWING THEIR RANK ACCORDING TO POPULATION AT EACH CENSUS FROM 1790 TO 1890.

States and Territories.	1790		1800		1810		1820		1830		1840		1850		1860		1870		1880		1890	
Total	3,929,214		5,308,483		7,039,881		9,633,822		12,866,020		17,069,453		23,191,876		31,443,321		38,558,371		50,155,783		62,622,250	
Alabama							19	127,901	15	309,527	12	590,756	12	771,623	13	964,201	16	996,992	17	1,262,505	17	1,513,017
Arizona																	46	9,658	44	40,440	48	69,620
Arkansas							26	14,255	28	30,388	25	97,574	26	209,897	25	435,450	26	484,471	25	802,525	24	1,128,179
California													29	92,597	26	379,994	24	560,247	24	864,694	22	1,208,130
Colorado															38	34,277	41	39,864	35	194,327	31	412,198
Connecticut	8	237,946	8	251,002	9	261,942	14	275,148	16	297,675	20	309,978	21	370,792	24	460,147	25	537,454	28	622,700	29	746,258
Delaware	16	59,096	17	64,273	19	72,647	22	72,749	24	76,748	26	78,085	30	91,532	32	112,216	35	125,015	38	146,608	42	168,493
Dist. of Columbia			19	14,093	22	24,023	25	33,039	25	39,834	28	43,712	33	51,687	35	75,080	34	131,700	36	177,624	39	230,392
Florida									26	34,730	27	54,477	31	87,445	31	140,424	33	187,748	34	269,493	34	391,422
Georgia	13	82,548	12	162,680	11	252,433	11	340,985	10	516,823	9	691,392	9	906,185	11	1,057,286	12	1,184,109	13	1,542,180	12	1,837,353
Idaho																	44	14,999	46	32,610	45	84,385
Illinois					24	12,282	24	55,162	20	157,445	14	476,183	11	851,470	4	1,711,951	4	2,539,891	4	3,077,871	3	3,826,351
Indiana			21	5,641	21	24,520	18	147,178	13	343,031	10	685,820	7	988,416	6	1,350,428	6	1,680,637	6	1,978,301	8	2,192,404
Iowa											29	43,112	27	192,214	23	674,913	11	1,194,020	10	1,624,615	10	1,911,896
Kansas															33	107,206	29	364,399	20	996,096	19	1,427,096
Kentucky	14	73,677	9	220,955	7	406,511	6	564,135	6	687,917	6	779,828	8	982,405	9	1,155,684	8	1,321,011	8	1,648,690	11	1,758,635
Louisiana					18	76,556	17	152,923	19	215,739	19	552,411	18	517,762	17	708,002	21	726,915	22	939,946	25	1,118,587
Maine	11	96,540	14	151,719	14	228,705	12	298,269	12	399,455	13	501,793	16	583,169	22	628,279	23	626,915	27	648,936	30	661,086
Maryland	5	319,728	7	341,548	8	380,546	10	407,350	11	447,040	15	470,019	17	583,034	19	687,049	20	780,894	23	934,943	27	1,042,390
Massachusetts	4	378,787	5	422,845	5	472,040	7	523,159	8	610,408	8	737,699	6	994,514	7	1,231,066	7	1,457,351	7	1,783,085	6	2,238,943
Michigan					25	4,762	27	8,765	27	31,639	23	212,267	20	97,654	16	749,113	13	1,184,059	9	1,636,937	9	2,093,889
Minnesota													36	6,077	30	172,023	28	439,706	26	780,773	20	1,301,821
Mississippi			20	8,850	20	40,352	21	75,448	22	136,621	17	375,651	15	606,526	14	791,305	18	827,922	18	1,131,597	21	1,289,660
Missouri					23	20,845	23	66,557	21	140,455	16	383,702	13	682,044	8	1,182,012	5	1,721,295	5	2,168,380	5	2,679,184
Montana																	43	20,595	45	39,159	44	132,159
Nebraska																						
Nevada															39	28,841	36	122,993	30	452,402	26	1,058,910
New Hampshire	10	141,885	11	183,858	16	214,460	15	244,022	18	269,328	22	284,574	22	317,976	41	6,857	40	42,491	43	62,266	49	45,761
New Jersey	9	184,139	10	211,149	12	245,562	13	277,426	14	320,823	18	373,306	19	489,555	27	326,073	31	318,300	31	346,991	33	376,530
New Mexico													32	61,547	21	672,035	17	906,096	19	1,131,116	18	1,444,933
New York	1	340,120	3	589,051	2	959,049	1	1,372,111	1	1,918,608	1	2,428,921	1	3,097,394	34	93,516	37	91,874	41	119,565	43	153,593
North Carolina	3	393,751	4	478,103	4	555,500	4	638,829	5	737,987	7	753,419	10	869,039	1	3,880,735	1	4,382,759	1	5,082,871	1	6,997,853
North Dakota															12	992,622	14	1,071,361	15	1,399,750	16	1,617,947
Ohio			18	45,365	13	230,760	5	581,295	4	937,903	3	1,519,467	3	1,980,329	42	2,419	45	7,091	40	68,084	41	182,719
Oklahoma															3	2,339,511	3	2,665,260	3	3,198,062	4	3,672,316
Oregon																					46	61,834
Pennsylvania	2	434,373	2	602,365	3	810,091	3	1,047,507	2	1,348,233	2	1,724,033	2	2,311,786	34	13,294	36	52,465	38	90,923	37	174,768
Rhode Island	15	68,825	16	69,122	17	76,931	20	83,015	23	97,199	24	108,830	28	147,545	2	2,906,215	2	3,521,951	2	4,282,891	2	5,258,014
South Carolina	7	249,073	7	345,591	6	415,115	8	502,741	9	581,185	11	594,398	14	668,507	29	174,620	32	217,353	33	276,531	35	345,506
South Dakota															18	703,708	21	705,606	21	995,577	23	1,151,149
Tennessee	17	35,691	15	105,602	10	261,727	9	422,771	7	681,904	5	829,210	5	1,002,717	42	2,418	45	7,091	40	68,083	37	328,808
Texas													25	212,592	10	1,109,801	9	1,258,520	12	1,542,359	13	1,767,518
Utah															23	604,215	19	818,579	11	1,591,749	7	2,235,523
Vermont	12	85,425	13	154,465	15	217,895	16	235,966	17	280,652	21	291,948	23	314,120	35	11,380	37	40,273	39	86,786	39	143,963	40	207,905
Virginia	1	747,610	1	880,200	1	974,600	2	1,065,116	3	1,211,405	4	1,239,797	4	1,421,661	28	315,098	30	330,551	32	332,286	36	332,422
Washington															5	1,596,318	10	1,225,163	14	1,512,565	15	1,645,990
West Virginia															40	11,594	42	23,955	42	75,116	34	349,390
Wisconsin																	27	442,014	29	618,457	28	762,794
Wyoming											30	30,945	24	305,391	15	775,881	15	1,054,670	16	1,315,497	14	1,686,880
																	47	9,118	47	20,789	47	60,705

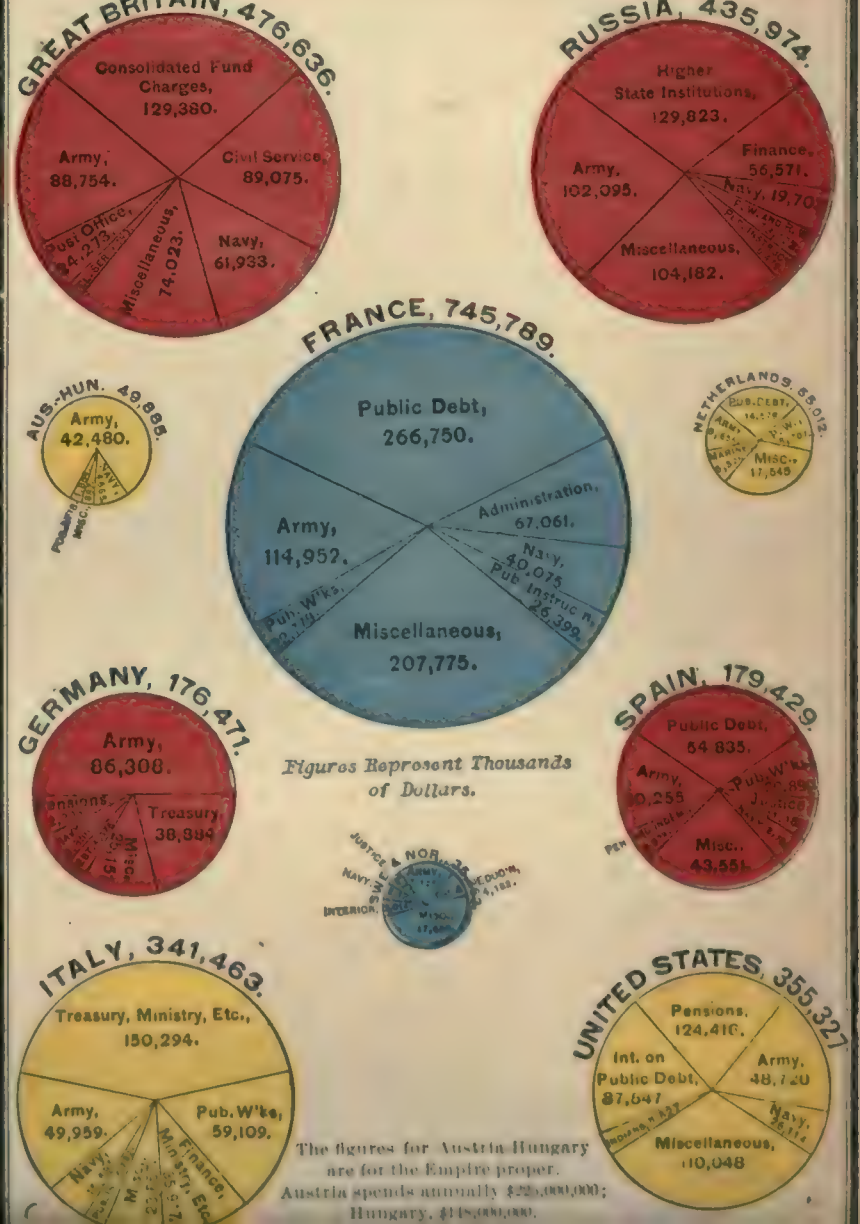
Note.—The figures in the first column under each year show the rank of the respective States and Territories according to population.

UNITED STATES CLIMATE AND RAINFALL.

The variations of Temperature, and the comparisons of heat and cold, between the States shown at a glance.

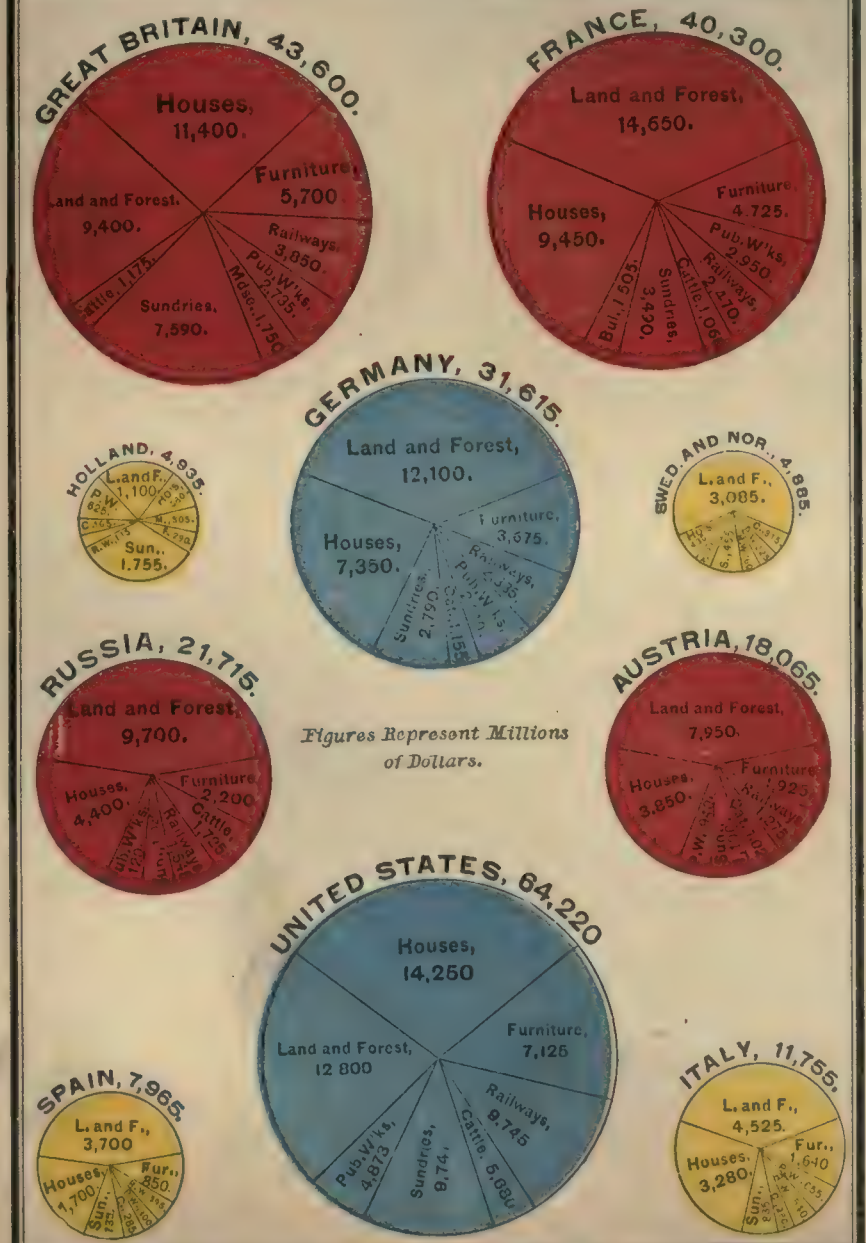


CLASSIFIED EXPENDITURE OF NATIONS.



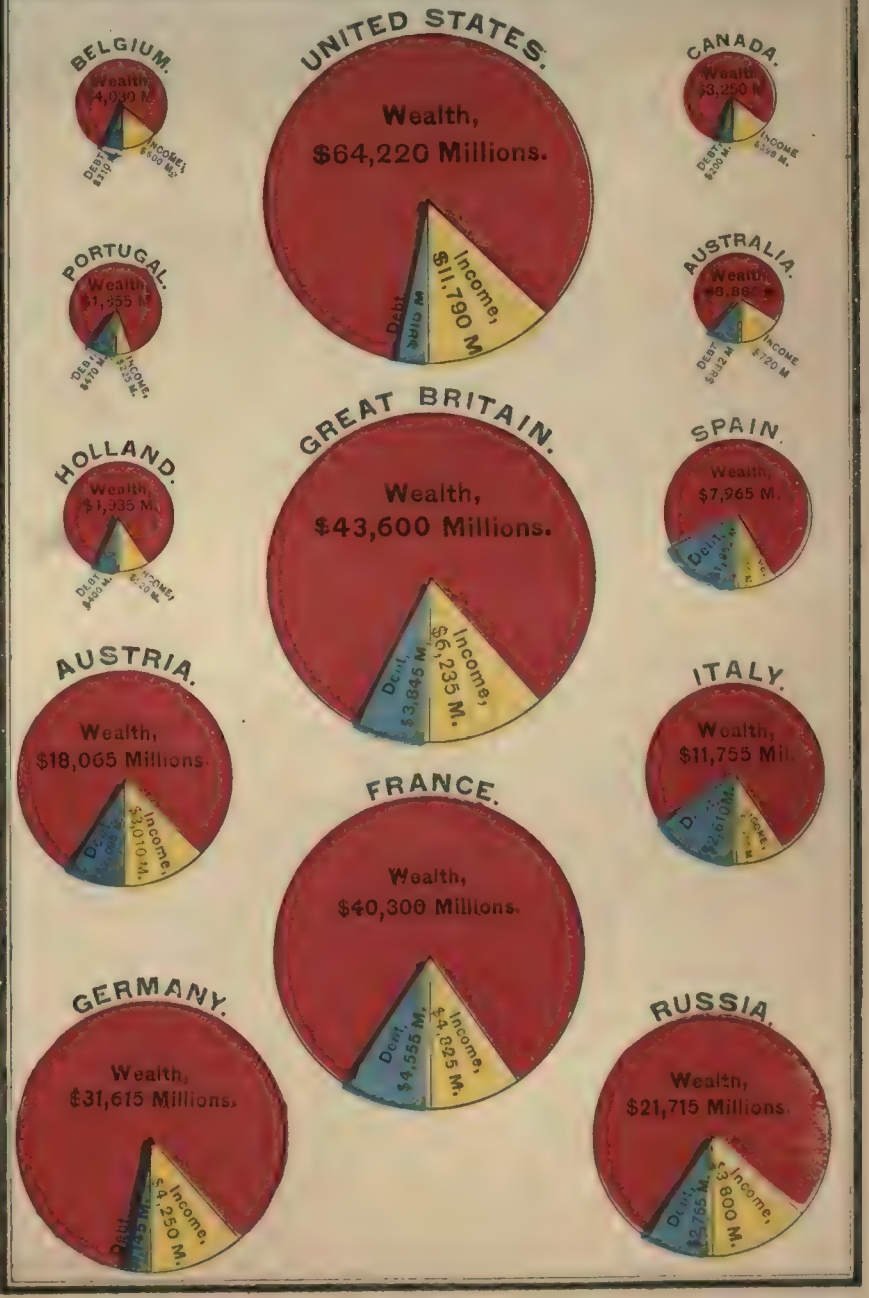
The figures for Austria-Hungary are for the Empire proper. Austria spends annually $25,000,000; Hungary, $15,000,000.

COMPONENT PARTS OF NATIONAL WEALTH.



Figures Represent Millions of Dollars.

COMPARATIVE WEALTH, INCOME AND DEBT OF VARIOUS COUNTRIES.



Population of the United States.

POPULATION OF THE UNITED STATES IN 1890, COMPARED WITH 1880 AND 1870, BY STATES AND TERRITORIES, SHOWING THE INCREASE BY NUMBER AND PERCENTAGES FROM 1880 TO 1890, FROM 1870 TO 1880, AND FROM 1860 TO 1870.

STATES AND TERRITORIES.	POPULATION.			INCREASE FROM 1880 TO 1890.		INCREASE FROM 1870 TO 1880.		INCREASE FROM 1860 TO 1870.	
	1890.	1880.	1870.	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.
The United States	62,622,250	50,155,783	38,558,371	12,466,467	24.86	11,597,412	30.08	7,115,050	22.63
North Atlantic divis'n	17,401,545	14,507,407	12,298,730	2,894,138	19 95	2,208,677	17 96	1,704,862	16 09
Maine	661,086	648,936	626,915	12,150	1.87	22,021	3 51	1,394	0 22
New Hampshire	376,530	346,991	318,300	29,539	8 51	28,691	9 01	7,773	2 38
Vermont	332,422	332,286	330,551	136	0 04	1,735	0 52	15,453	4 90
Massachusetts	2,238,943	1,783,085	1,457,351	455,858	25 57	325,734	22 35	226,285	18 38
Rhode Island	345,506	276,531	217,353	68,975	24.94	59,178	27 25	42,735	24 47
Connecticut	746,258	622,700	537,454	123,558	19.84	85,246	15 86	77,207	16 80
New York	5,997,853	5,082,871	4,382,759	914,982	18 00	700,112	15 97	502,024	12 94
New Jersey	1,444,933	1,131,116	906,096	313,817	27 74	225,020	24 83	244,061	34 83
Pennsylvania	5,258,014	4,282,891	3,521,951	975,123	22 77	760,940	21 61	615,736	21 19
South Atlantic divis'n	8,857,920	7,597,197	5,853,610	1,260,723	16 59	1,743,587	29 79	488,907	9 11
Delaware	168,493	146,608	125,015	21,885	14 93	21,593	17.27	12,799	11 41
Maryland	1,042,390	934,943	780,894	107,447	11 49	154,049	19 73	93,845	13 66
District of Columbia	230,392	177,624	131,700	52,768	29 71	45,924	34 87	56,620	75 41
Virginia	1,655,980	1,512,565	1,225,163	143,415	9.48	287,402	23 46	70,859	4 44
West Virginia	762,794	618,457	442,014	144,337	23 34	176,443	39 92		
North Carolina	1,617,947	1,399,750	1,071,361	218,197	15.59	328,389	30.65	78,739	7 93
South Carolina	1,151,149	995,577	705,606	155,572	15 63	289,971	41.10	1,898	0.27
Georgia	1,837,353	1,542,180	1,184,109	295,173	19 14	358,071	30 24	126,823	12 00
Florida	391,422	269,493	187,748	121,929	45 24	81,745	43.54	47,324	33 70
Northern Central div'n	22,362,279	17,364,111	12,981,111	4,998,168	28 78	4,383,000	33 76	3,881,385	42 70
Ohio	3,672,316	3,198,062	2,665,260	474,254	14 83	532,802	19.99	325,749	13 92
Indiana	2,192,404	1,978,301	1,680,637	214,103	10 82	297,664	17 71	360,269	21 45
Illinois	3,826,351	3,077,871	2,539,891	748,480	24 32	537,980	21.18	827,240	48 36
Michigan	2,093,889	1,636,937	1,184,059	456,952	27 92	452,878	38 25	484,946	58 06
Wisconsin	1,686,880	1,315,497	1,054,670	371,383	28 23	260,827	24 73	278,789	35 93
Minnesota	1,301,826	780,773	439,706	521,053	66 74	341,067	77 57	267,683	155 61
Iowa	1,911,896	1,624,615	1,194,020	287,281	17 68	430,595	36 06	519,107	76 91
Missouri	2,679,184	2,168,380	1,721,295	510,804	23 56	447,085	25 97	539,283	45 62
North Dakota	182,719	36,909	14,181	145,810	395 05	120,996	853 23	9,341	193 18
South Dakota	328,808	98,268		230,540	234 60				
Nebraska	1,058,910	452,402	122,993	606,508	134 05	329,409	267 83	94,152	326 45
Kansas	1,427,096	996,096	364,399	431,000	43 27	631,697	173 35	257,193	239 91

STATES AND TERRITORIES.	POPULATION.			INCREASE FROM 1880 TO 1890.		INCREASE FROM 1870 TO 1880.		INCREASE FROM 1860 TO 1870.	
	1890.	1880.	1870.	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.
Southern Central div.	10,972,893	8,919,371	6,434,410	2,053,522	23.02	2,484,961	38.62	665,752	11.54
Kentucky	1,858,635	1,648,690	1,321,011	209,945	12.73	327,679	24.81	165,327	14.31
Tennessee	1,767,518	1,542,359	1,258,520	225,159	14.60	283,839	22.55	148,719	13.40
Alabama	1,513,017	1,262,505	996,992	250,512	19.84	265,513	26.63	32,791	3.40
Mississippi	1,289,600	1,131,597	827,922	158,003	13.96	303,675	36.68	36,617	4.63
Louisiana	1,118,587	939,946	726,915	178,641	19.01	213,031	29.31	18,913	2.67
Texas	2,235,523	1,591,749	818,579	643,774	40.44	773,170	94.45	214,364	35.48
Oklahoma	61,834	.....	.....	61,834	.....	.....	.....	.....	.....
Arkansas	1,128,179	802,525	484,471	325,654	40.58	318,054	65.65	49,021	11.26
Western division	3,027,613	1,767,697	990,510	1,259,916	71.27	777,187	78.46	371,534	60.02
Montana	132,159	39,159	20,595	93,000	237.49	18,564	90.14	20,595	.....
Wyoming	60,705	20,789	9,118	39,916	192.01	11,671	128.00	9,118	.....
Colorado	412,198	194,327	39,864	217,871	112.12	154,463	387.47	5,587	16.30
New Mexico	153,593	119,565	91,874	34,028	28.46	27,691	30.14	a1,642	a1.76
Arizona	59,620	40,440	9,658	19,180	47.43	30,782	318.72	9,658	.....
Utah	207,905	143,963	86,786	63,942	44.42	57,177	65.88	46,513	115.49
Nevada	45,761	62,266	42,491	a16,505	a26.51	19,775	46.54	35,634	519.67
Idaho	84,385	32,610	14,999	51,775	158.77	17,611	117.41	14,999	.....
Washington	349,390	75,116	23,955	274,274	365.13	51,161	213.57	12,361	106.62
Oregon	313,767	174,768	90,923	138,999	79.53	83,845	92.22	38,458	73.30
California	1,208,130	864,694	560,247	343,436	39.72	304,447	54.34	180,253	47.44

a Decrease.

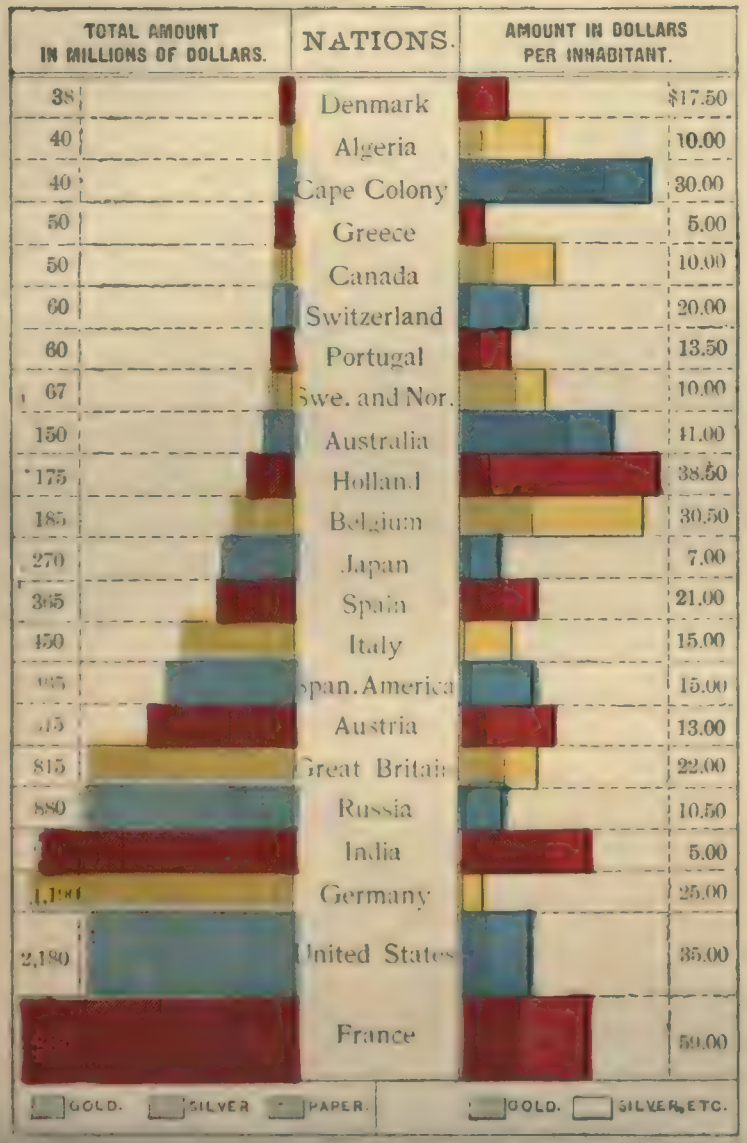
RECAPITULATION BY GROUPS.

GEOGRAPHICAL DIVISIONS.	POPULATION.			INCREASE FROM 1880 TO 1890.		INCREASE FROM 1870 TO 1880.		INCREASE FROM 1860 TO 1870.	
	1890.	1880.	1870.	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.
The United States	62,622,250	50,155,783	38,558,371	12,466,467	24.86	11,597,412	30.08	7,115,050	22.63
North Atlantic division	17,401,545	14,507,407	12,298,730	2,894,138	19.95	2,208,677	17.96	1,704,462	16.09
South Atlantic division	8,857,920	7,597,197	5,853,610	1,260,723	16.59	1,743,587	29.79	488,907	9.11
Northern Central div.	22,362,279	17,364,111	12,981,111	4,998,168	28.78	4,383,000	33.76	3,884,395	42.70
Southern Central div.	10,972,893	8,919,371	6,434,410	2,053,522	23.02	2,484,961	38.62	665,752	11.54
Western division	3,027,613	1,767,697	990,510	1,259,916	71.27	777,187	78.46	371,534	60.02

The above figures are exclusive of Indians, of the population of Alaska, and of Whites on Indian reservations.

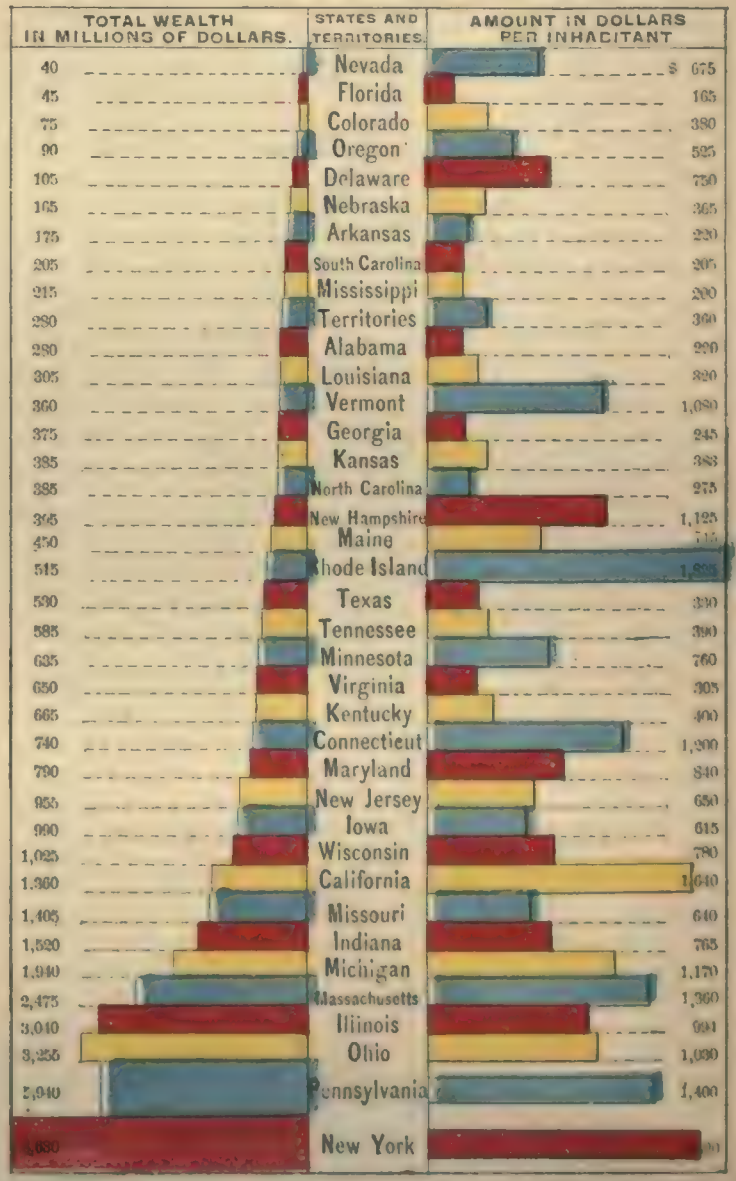
MONEY IN CIRCULATION

In all Nations.



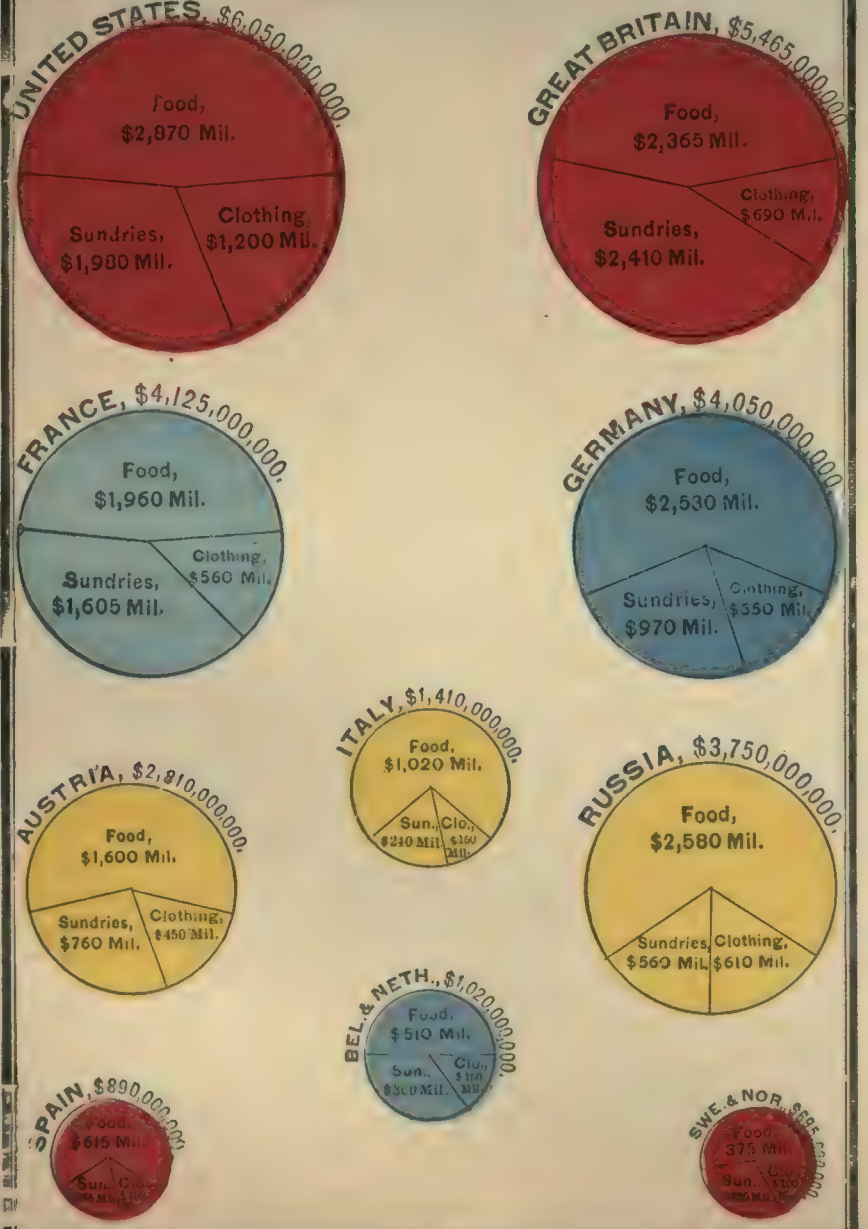
WEALTH OF THE UNITED STATES,

TOTAL AND PER CAPITA.



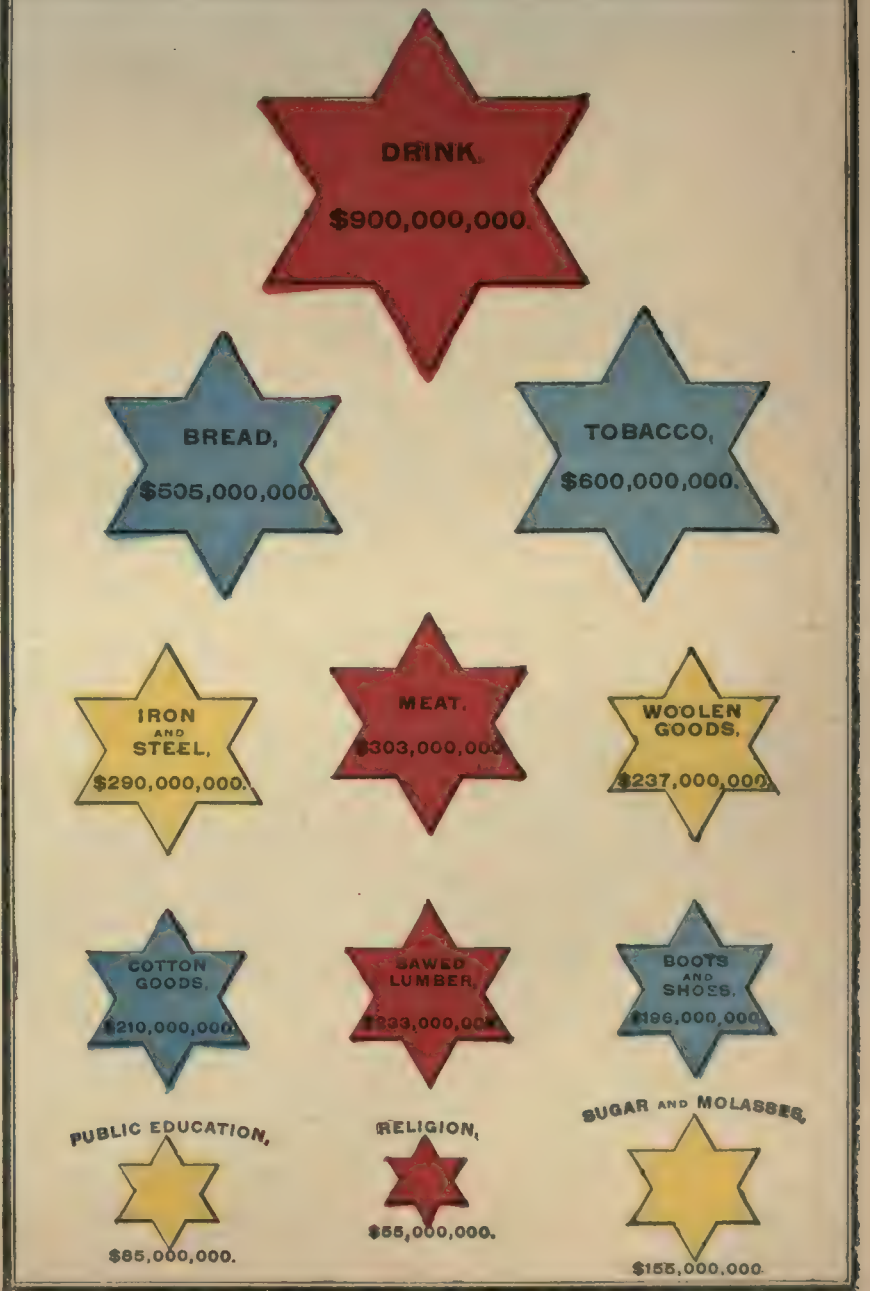
Cost of Living in Various Countries.

Annual Expenditure per Individual.



What We Spend Our Money For.

The Necessaries of Life, Compared with the Cost of Liquor and Tobacco.



GREAT CITIES OF THE WORLD HAVING 120,000 INHABITANTS.

Population According to the Latest Official Censuses.

Cities.	Census Year.	Population.	Cities.	Census Year.	Population.
London	1891	4,231,431	Seoul, Corea	est.	250,000
Paris	1886	2,344,550	Stockholm	1890	246,154
New York (municipal)*	1890	1,710,715	Lisbon	1878	242,297
Canton	est.	1,600,000	New Orleans	1890	241,998
Berlin	1890	1,579,244	Bordeaux	1886	240,582
Tokio, Japan	1890	1,389,684	Pittsburgh	1890	238,774
Vienna	1890	1,364,548	Santiago, Chile	1885	236,412
Chicago	1890	1,098,576	Washington	1890	229,796
Philadelphia	1890	1,044,894	Alexandria	1882	227,664
St. Petersburg	1890	956,226	Benares	1891	222,420
Constantinople	1885	873,565	Bucharest	1876	221,895
Brooklyn (municipal)*	1890	853,945	Bristol, England	1891	221,665
Calcutta	1891	840,130	Hong Kong	1891	221,141
Bombay	1891	804,470	Montreal	1891	216,650
Moscow	1885	753,469	Bradford, England	1891	216,361
Glasgow	1891	565,714	Antwerp	1889	215,779
Buenos Ayres	1891	546,986	Nottingham, England	1891	211,984
Naples	1890	530,872	Teheran, Persia	est.	210,000
Liverpool	1891	517,951	Rotterdam	1890	209,356
Buda-Pesth	1890	506,384	Genoa	1890	206,485
Manchester	1891	505,343	Detroit	1890	205,669
Peking, China	est.	500,000	Milwaukee	1890	204,365
Melbourne	1891	488,999	Magdeburg	1890	202,325
Osaka, Japan	1890	476,271	Damascus	est.	200,000
Madrid	1887	472,228	Hull, England	1891	199,991
Brussels	1889	469,317	Havana	1888	198,241
St. Louis	1890	460,357	Salford, England	1891	198,136
Madras	1891	449,950	Delhi	1891	196,580
Boston	1890	446,507	Florence	1890	194,453
Warsaw	1890	443,426	Penang	1881	190,597
Baltimore	1890	435,151	Lille	1886	188,272
Birmingham	1891	429,171	Mandelay	1891	187,910
Rome	1890	423,217	Smyrna	1885	186,510
Amsterdam	1890	417,589	Newcastle	1891	186,345
Milan	1890	411,551	Cawnpore	1891	182,410
Lyons	1886	401,930	Newark, U. S.	1890	181,578
Hyderabad, India	1891	392,730	Toronto	1891	181,220
Sydney	1891	386,100	Rangoon	1891	181,210
Marsailles	1884	376,143	Frankfort	1890	179,850
Cairo	1882	368,108	Riga, Russia	1885	175,332
Leeds	1891	367,506	Kharkoff, Russia	1885	171,416
Rio de Janeiro	1885	357,332	Valencia	1886	170,763
Shanghai	est.	355,000	Kieff, Russia	1887	170,216
Leipzig	1890	353,272	Hanover	1890	165,499
Munich	1890	348,317	Minneapolis	1890	164,738
Breslau	1890	335,174	Jersey City	1890	163,987
Mexico	1890	329,535	Konigsburg	1890	161,528
Sheffield	1891	324,243	Louisville	1890	161,005
Hamburg	1890	323,928	The Hague	1890	160,341
Turin	1890	320,808	Manila	est.	160,000
Copenhagen	1890	312,387	Patna	est.	160,000
Prague	1889	304,000	Portsmouth, England	1891	159,255
San Francisco	1890	297,990	Trieste	1890	158,344
Cincinnati	1890	296,908	Venice	1890	158,019
Cologne	1890	281,273	Dundee	1891	155,640
Kioto, Japan	1890	279,792	Ghent	1889	150,656
Dresden	1890	276,085	Toulouse	1886	147,917
Lucknow	1891	272,590	Seville	1887	143,182
Barcelona	1887	272,481	Liege	1889	142,657
Odessa	1887	270,643	Leicester, England	1891	142,051
Palermo	1890	267,416	Stuttgart	1890	139,699
Cleveland	1890	261,546	Omaha	1890	139,526
Edinburgh	1891	261,261	Rochester, U. S.	1890	138,327
Belfast	1891	255,896	Bremen	1890	135,830
Dublin	1891	254,709	Yokohama	1890	121,985
Buffalo	1890	254,457			

* Municipal census of 1890. The statistics of population of largest cities of the earth have been taken mainly from the Almanach de Gotha for 1892.

NOTE.—The population of Chinese cities other than Canton, Peking and Shanghai is omitted, because reports respecting it are utterly untrustworthy. There are forty or more Chinese cities whose inhabitants are numbered by rumor at from 200,000 to 1,000,000 each, but no official censuses have ever been taken, and setting aside consideration of the Oriental tendency to exaggeration, there is reason to believe that the estimates of population in many instances covered districts of country bearing the same names as those of the cities, instead of definite municipalities.

POPULATION OF THE CITIES OF THE UNITED STATES

OF 8,000 AND OVER.

Together with Population of all the States and Territories, According to 1890 Census.

Alabama.

Birmingham	26,241
Mobile	31,822
Montgomery	21,790
Total for 1880	1,262,505
Total for 1890	1,508,073

Arizona.

Total for 1880	40,440
Total for 1890	59,691

Arkansas.

Fort Smith	11,291
Hot Springs	8,073
Little Rock	22,496
Pine Bluff	9,952
Total for 1880	802,525
Total for 1890	1,125,385

California.

Los Angeles	50,394
Sacramento	26,272
San Diego	16,153
San Francisco	297,990
San Jose	18,027
Santa Rosa	14,379
Total for 1880	864,694
Total for 1890	1,204,002

Colorado.

Denver	106,670
Leadville	11,159
Pueblo	28,128
Total for 1880	194,327
Total for 1890	410,975

Connecticut.

Bridgeport	48,856
Danbury	19,385
Greenwich	10,120
Hartford	53,182
Manchester	8,217
Meriden	21,236
Middletown	9,012
New Britain	19,010
New Haven	81,451
New London	13,750
Norwalk	17,739
Norwich	16,192
Stamford	15,685
Vernon	8,807
Waterbury	28,591
Windham	10,025
Total for 1880	622,700
Total for 1890	745,861

Delaware.

Wilmington	61,437
Total for 1880	146,608
Total for 1890	167,871

District of Columbia.

Washington	229,796

Florida.

Jacksonville	17,160
Key West	18,058
Pensacola	11,751
Total for 1880	269,493
Total for 1890	390,435

Georgia.

Athens	8,627
Atlanta	65,515
Augusta	33,150
Brunswick	8,403
Columbus	18,650
Macon	22,698
Savannah	41,762
Total for 1880	1,542,186
Total for 1890	1,834,366

Idaho.

Total for 1880	32,610
Total for 1890	84,229

Illinois.

Alton	10,184
Aurora	19,634
Belleville	15,506
Bloomington	22,242
Cairo	10,044
Chicago	1,098,576
Danville	11,528
Decatur	16,841
East St. Louis	15,156
Elgin	17,429
Freeport	10,159
Galesburg	15,212
Jacksonville	12,357
Joliet	27,407
Moline	11,995
Ottawa	9,971
Peoria	40,758
Quincy	31,478
Rockford	23,589
Rock Island	13,596
Springfield	24,852
Streator	11,414
Total for 1880	3,077,871
Total for 1890	3,818,536

Indiana.

Anderson	10,739
Elkhart	11,370
Evansville	50,674
Fort Wayne	35,349
Indianapolis	107,445
Jeffersonville	11,274
Kokomo	8,224
Lafayette	16,407
Logansport	13,798
Madison	8,929
Marion	8,734
Michigan City	10,704
Muncie	11,339
New Albany	21,000
North Township	9,574
Richmond	16,849
South Bend	21,786
Terre Haute	30,287
Vincennes	8,815
Total for 1880	1,978,301
Total for 1890	2,189,030

Iowa.

Burlington	22,528
Cedar Rapids	17,997
Clinton	13,629
Council Bluffs	21,388
Davenport	28,500
Des Moines	50,067
Dubuque	30,258
Keokuk	14,075
Marshalltown	9,508
Muscatine	11,432
Ottumwa	13,996
Sioux City	37,862
Total for 1880	1,624,615
Total for 1890	1,906,729

Kansas.

Arkansas	8,354
Atchison	14,222
Fort Scott	11,837
Hutchinson	8,078
Kansas City	38,170
Lawrence	9,975
Leavenworth	21,613
Topeka	31,809
Wichita	23,735
Total for 1880	996,096
Total for 1890	1,423,485

Kentucky.

Covington	37,375
Henderson	8,890
Lexington	21,255
Louisville	161,005
Newport	24,938
Owensborough	9,818
Paducah	13,024
Total for 1880	1,648,690
Total for 1890	1,855,436

Louisiana.

Baton Rouge	10,397
New Orleans	241,995
Shreveport	11,482
Total for 1880	939,946
Total for 1890	1,116,828

Maine.

Auburn	11,228
Augusta	10,521
Bangor	19,090
Bath	8,713
Biddeford	14,418
Lewiston	21,668
Portland	36,608
Rockland	8,137
Total for 1880	648,936
Total for 1890	600,261

Massachusetts.

Adams	9,213
Amesbury	9,738
Beverly	10,821
Boston	448,447
Brocton	27,294
Brookline	12,103
Cambridge	70,028
Chelsea	27,909
Chicopee	14,050
Clinton	10,424
Everett	11,068
Fall River	74,398
Fitchburg	22,037
Framingham	9,239
Gardner	8,424
Gloucester	24,651
Haverhill	27,412
Holyoke	35,637
Hyde Park	10,193
Lawrence	44,654
Lowell	77,696
Lynn	55,727
Malden	23,031
Marblehead	8,202
Marlborough	13,805
Medford	11,079
Melrose	8,519
Milford	8,780
Natick	9,118
New Bedford	40,733
Newburyport	13,947
Newton	24,379
North Adams	16,074
Northampton	14,990
Peabody	10,158
Pittsfield	17,281
Quincy	16,723
Salem	30,801
Somerville	40,152
Spencer	8,747
Springfield	44,179
Taunton	25,448
Waltham	18,707
Westfield	9,805
Weymouth	10,866
Woburn	13,499
Worcester	84,655
Total for 1880	1,783,085
Total for 1890	2,238,407

Maryland.

Baltimore	434,151
Cumberland	10,030
Hagerstown	11,698
Frederick	9,621
Total for 1880	934,943
Total for 1890	1,040,431

Michigan.

Adrian	9,239
Alpena	11,228
Ann Arbor	9,509
Battle Creek	13,080
Bay City	27,826
Detroit	205,669

Flint	9,845
Grand Rapids	64,147
Ispeming	11,484
Jackson	20,779
Kalamazoo	17,857
Lansing	12,620
Manistee	12,799
Marquette	9,093
Menominee	10,796
Muskegon	22,678
Port Huron	13,979
Saginaw	46,109
West Bay City	12,940
Total for 1880	1,636,937
Total for 1890	2,089,792

Minnesota.

Duluth	32,725
Minneapolis	164,738
Mankato	8,805
St. Paul	133,156
Stillwater	11,260
Winona	18,208
Total for 1880	780,773
Total for 1890	1,300,017

Mississippi.

Meridian	10,889
Vicksburg	13,298
Total for 1880	1,131,597
Total for 1890	1,284,887

Missouri.

Hannibal	12,816
Joplin	9,909
Kansas City	132,716
Moberly	8,213
Sedalia	13,994
Springfield	21,812
St. Joseph	52,811
St. Louis	460,357
Total for 1880	2,168,380
Total for 1890	2,677,080

Montana.

Butte City	10,701
Helena	13,834
Total for 1880	39,159
Total for 1890	131,769

Nebraska.

Beatrice	13,921
Hastings	13,793
Lincoln	55,491
Nebraska City	11,472
Omaha	139,526
Plattsmouth	8,403
S. Omaha	8,071
Total for 1880	452,402
Total for 1890	1,056,793

Nevada.

Total for 1880	62,266
Total for 1890	44,327

New Hampshire.

Concord	17,004
Dover	12,790
Manchester	44,126
Nashua	19,311
Portsmouth	9,827
Total for 1880	346,991
Total for 1890	375,827

New Jersey.

Atlantic City	13,038
Bayonne	18,996
Bridgeton	11,471
Burlington	8,198
Camden	58,274
Elizabeth	37,670
Harrison	8,523
Hoboken	43,761
Jersey City	163,987
Millville	9,957
Newark	181,548
New Brunswick	18,059
Orange	18,774
Passaic	13,027
Paterson	78,458
Perth Amboy	9,476
Phillipsburg	8,622
Plainfield	11,267
Trenton	58,488
Total for 1880	1,131,116
Total for 1890	1,441,017

New York.

Albany	94,640
Amsterdam	17,264
Auburn	25,887
Binghamton	35,005
Brookhaven	12,572
Brooklyn	804,377
Buffalo	254,457
Cohoes	22,492
Corning	8,556
Dunkirk	9,102
Elmira	28,170
Flushing	19,126
Gloversville	13,706
Hempstead	23,517
Hornellsville	10,948
Hudson	10,027
Huntington	8,217
Islip	8,747
Ithaca	11,557
Jamaica	13,046
Jamestown	15,991
Kingston	21,181
Lansingburg	10,523
Lockport	16,003
Long Island City	30,396
Middletown	11,918
Newburg	23,263
New Brighton	16,400
Newton	17,557
New York	1,513,501
North Hempstead	8,126
Ogdensburg	11,607
Oswego	21,826
Oyster Bay	13,788
Peekskill	10,826
Poughkeepsie	22,206
Rochester	138,327
Rome	14,980
Saratoga Springs	13,124
Schenectady	19,857
South Hampton	8,189
Syracuse	88,287
Troy	60,605
Utica	44,001
Watertown	14,725
West Troy	12,342
Yonkers	31,917
Total for 1880	5,082,871
Total for 1890	5,981,934

New Mexico.

Total for 1880	119,565
Total for 1890	144,862

North Carolina.

Asheville	10,433
Charlotte	11,557
Raleigh	12,798
Wilmington	20,008
Total for 1880	1,399,750
Total for 1890	1,617,340

Ohio.

Akron	27,702
Ashtabula	8,316
Bellaire	9,901
Canton	26,327
Chillicothe	11,256
Cincinnati	296,309
Cleveland	261,546
Columbus	90,598
Dayton	58,868
Delaware	8,202
East Liverpool	10,947
Findlay	18,674
Hamilton	17,519
Ironton	10,922
Lima	15,970
Lancaster	8,297
Mansfield	13,542
Marietta	8,308
Marion	8,348
Massillon	10,068
Newark	14,390
Piqua	9,069
Portsmouth	12,387
Sandusky	19,273
Springfield	32,738
Steubenville	13,203
Tiffin	10,978
Toledo	82,652
Xenia	8,445
Youngstown	33,109
Zanesville	21,117
Total for 1880	3,198,062
Total for 1890	3,666,719

Oregon.

East Portland	10,481
Portland	47,284
Total for 1880	174,768
Total for 1890	312,490

Pennsylvania.

Allegheny City	104,907
Allentown	25,183
Altoona	30,209
Beaver Falls	9,751
Bradford	10,478
Braddock	8,558
Butler	8,715
Carbondale	10,826
Carlisle	8,661
Chambersburgh	8,996
Chester	20,107
Columbia	10,509
Danville	9,073
Dunmore	8,242
Easton	14,185
Erie	39,029
Harrisburg	40,164
Hazelton	11,818
Johnstown	21,129
Lancaster	32,000
Lebanon	14,794
McKeesport	20,741
Mahanoy City	11,291
Meadville	9,502
Mt. Carmel	8,243
Nanticoke	10,027
New Castle	11,581
Norristown	19,750
Oil City	10,943
Philadelphia	1,044,890
Phœnixville	8,508
Plymouth	9,341
Pittsburgh	238,473
Pittston	10,205
Pottstown	13,201
Pottsville	14,194
Reading	58,926
Scranton	81,450
Shamokin	14,339
Shenandoah	15,951
South Bethlehem	10,396
Steelton	9,250
Titusville	8,010
Wilkesbarre	37,651
Williamsport	27,107
York	20,849
Total for 1880	4,282,891
Total for 1890	5,248,574

Rhode Island.

Newport	19,499
Pawtucket	27,502
Providence	132,043
Woonsocket	20,759
Total for 1880	276,531
Total for 1890	345,343

South Carolina.

Charleston	54,592
Greenville	8,388
Columbia	14,508
Total for 1880	995,577
Total for 1890	1,147,161

North Dakota.

Total for 1880	36,909
Total for 1890	182,425

South Dakota.

Sioux Falls	10,154
Total for 1880	98,268
Total for 1890	327,848

Tennessee.

Chattanooga	29,100
Jackson	10,039
Knoxville	22,535
Memphis	64,495
Nashville	76,168
Clarksville	11,606
Total for 1880	1,542,359
Total for 1890	1,767,518

Texas.

Austin	15,024
Dallas	38,340
Dennison	10,099
El Paso	10,338
Fort Worth	23,076
Galveston	29,084
Houston	27,557
Laredo	11,319
Paris	8,458
Waco	14,445
San Antonio	37,673
Total for 1880	1,591,749
Total for 1890	2,232,320

Utah.

Ogden	14,919
Salt Lake City	44,843
Total for 1880	143,963
Total for 1890	206,486

Vermont.

Burlington	14,506
Rutland	11,257
Total for 1880	332,286
Total for 1890	332,305

Virginia.

Danville	10,285
Alexandria	14,318
Lynchburg	19,779
Manchester	9,229
Norfolk	35,454
Petersburg	21,810
Portsmouth	12,845
Richmond	80,038
Roanoke	16,159
Total for 1880	1,512,565
Total for 1890	1,648,911

Washington.

Seattle	43,914
Spokane Falls	19,257
Tacoma	35,858
Total for 1880	75,116
Total for 1890	349,516

West Virginia.

Huntington	10,082
Parkersburg	8,339
Wheeling	35,052
Total for 1880	618,457
Total for 1890	762,448

Wisconsin.

Appleton	11,325
Ashland	10,300
Chippewa Falls	8,620
Eau Claire	17,518
Fond du Lac	11,902
Green Bay	9,069
Janesville	10,233
La Crosse	25,090
Madison	13,522
Marinette	11,424
Milwaukee	204,468
Oshkosh	22,732
Racine	21,022
Sheboygan	16,311
Superior	13,000
Watertown	8,780
Wausau	9,251
Total for 1880	1,315,497
Total for 1890	1,686,697

Wyoming.

Cheyenne	11,690
Total for 1880	20,789
Total for 1890	60,709

THE COPYRIGHT LAW.

Directions for Securing Copyrights under the revised Acts of Congress.

—1892.—

1. A *printed* copy of the title (besides the two copies to be deposited after publication) of the book, map, chart, dramatic or musical composition, engraving, cut, print, or photograph, or a *description* of the painting, drawing, chromo, statue, statuary, or model or design for a work of the fine arts, for which copyright is desired, must be sent by mail or otherwise, *prepaid*, addressed "Librarian of Congress, Washington, D. C." This must be done before publication of the book or other article.

The *printed title* required may be a copy of the title page of such publications as have title pages. In other cases, the title must be printed expressly for copyright entry, with name of claimant of copyright. The style of type is immaterial, and the print of a type-writer will be accepted. But a separate title is required for each entry, and *each* title must be printed on paper as large as commercial note. The title of a *periodical* must include the date and number.

2. The legal fee for *recording* each copyright claim is 50 cents, and for a *copy* of this record (or certificate of copyright) an additional fee of 50 cents is required. The *record* fee from aliens and non-residents is $1.

3. On or before the day of publication of each book or other article, two complete copies of the best edition issued must be sent, to perfect the copyright, with the address "Librarian of Congress, Washington, D. C." The postage must be prepaid, or else the publication inclosed in parcels covered by printed Penalty Labels, furnished by the Librarian. In the case of a book, photograph, chromo or lithograph, the two copies deposited shall be printed from type set in the U. S., or from plates made therefrom, or from negatives or drawings on stone made in the U. S., or from transfers made therefrom.

4. No copyright is valid unless notice is given by inserting in every copy published, on the title page or the page following, if it be a book; or, if a map, chart, musical composition, print, cut, engraving, photograph, painting, drawing, chromo, statue, statuary, or model or design intended to be perfected as a work of the fine arts, by inscribing upon some portion thereof, or on the substance on which the same is mounted, the following words, viz: "*Entered according to act of Congress, in the year*——, *by*———, *in the office of the Librarian of Congress, at Washington*," or, at the option of the person entering the copyright, the words: "*Copyright, 18*—, *by*———."

The law imposes a penalty of $100 upon any person who has not obtained copyright who shall insert the notice "*Entered according to act of Congress*," or "*Copyright*," etc., or words of the same import, in or upon any book or other article.

5. Any author may reserve the right to translate or dramatize his own work. In this case, notice should be given by printing the words "*Right of translation reserved*," or "*All rights reserved*," below the notice of copyright entry, and notifying the Librarian of Congress of such reservation, to be entered upon the record.

Since the phrase *all rights reserved* refers exclusively to the author's right to dramatize or to translate, it has no bearing upon any publications except original works, and will not be entered upon the record in other cases.

6. The original term of copyright runs for twenty-eight years. *Within six months before* the end of that time, the author or designer, or his widow or children, may secure a renewal for the further term of fourteen years, making forty-two years in all. Applications for renewal must be accompanied by explicit statement of ownership, in the case of the author, or of relationship, in the case of his heirs, and must state definitely the date and place of entry of the original copyright. Advertisement of renewal is to be made within two months of date of renewal certificate, in some newspaper, for four weeks.

7. The time within which any work entered for copyright may be issued from the press is not limited by law, but the courts hold that it should take place within a reasonable time. A copyright may be secured for a projected as well as for a finished work. The law provides for no *caveat*, or notice of interference—only for actual entry of title.

8. A copyright is assignable in law by any instrument of writing, but such assignment must be recorded in the office of the Librarian of Congress within sixty days from its date. The fee for this record and certificate is one dollar, and for a certified copy of any record of assignment one dollar.

9. A copy of the record (or duplicate certificate) of any copyright entry will be furnished, under seal, at the rate of fifty cents each.

10. In the case of books published in more than one volume, or of periodicals published in numbers, or of engravings, photographs, or other articles published with variations, a copyright is to be entered for each volume or part of a book, or number of a periodical, or variety, as to style, title, or inscription, of any other article. But a book published serially in a periodical, under the same general title, requires only one entry. To *complete* the copyright on such a work, two copies of each serial part, as well as of the complete work (if published separately), must be deposited.

11. To secure a copyright for a painting, statue, or model or design intended to be perfected as a work of the fine arts, so as to prevent infringement by copying, engraving, or vending such design, a definite description must accompany the application for copyright, and a photograph of the same, at least as large as "cabinet size," should be mailed to the Librarian of Congress not later than the day of publication of the work or design.

12. Copyrights cannot be granted upon trade-marks, nor upon mere names of companies or articles, nor upon prints or labels intended to be used with any article of manufacture. If protection for such names or labels is desired, application must be made to the Patent Office, where they are registered at a fee of $6 for labels and $25 for trade-marks.

13. These provisions apply to citizens of the United States, British Empire, France, Belgium, Switzerland.

14. Every applicant for a copyright should state distinctly the full name and residence of the claimant, and whether the right is claimed as author, designer, or proprietor. No affidavit or formal application is required.

TABLES OF DURATION AND EXPECTATION OF LIFE.

CONSTRUCTED BY DR. FARR, F.R.S.

DURATION.

AGE.	PERSONS ALIVE AT BEGINNING OF YEAR. NO.	MALE.	FEMALE.	TOTAL DEATHS EACH YEAR.
0	1,000,000	511,745	488,255	149,493
1	850,507	428,026	422,481	53,080
2	797,427	400,505	396,922	28,235
3	769,189	386,240	382,949	18,456
4	750,733	377,077	373,656	13,315
5	739,418	370,358	366,460	9,809
6	729,609	365,325	361,504	7,768
7	719,151	361,372	357,779	6,559
8	712,592	358,062	354,530	5,458
9	707,134	355,328	351,806	4,625
10	702,509	353,031	349,478	4,028
11	698,481	351,048	347,433	3,637
12	694,844	349,272	345,572	3,431
13	691,413	347,606	343,807	3,382
14	688,031	345,969	342,062	3,468
15	684,563	344,260	340,273	3,669
16	680,894	342,509	338,385	3,957
17	676,937	340,581	336,356	4,317
18	672,620	338,469	334,151	4,720
19	667,900	336,149	331,751	5,150
20	662,750	333,608	329,142	5,583
21	657,167	330,844	326,323	5,668
22	651,499	328,043	323,456	5,748
23	645,751	325,207	320,544	5,820
24	639,931	322,339	317,592	5,886
25	634,045	319,422	314,603	5,950
26	628,095	316,516	311,579	6,009
27	622,086	313,562	308,524	6,065
28	616,021	310,581	305,440	6,121
29	609,900	307,572	302,328	6,176
30	603,724	304,534	299,190	6,231
31	597,493	301,466	296,027	6,287
32	591,206	298,366	292,840	6,343
33	584,863	295,232	289,631	6,404
34	578,459	292,061	286,398	6,466
35	571,993	288,850	283,143	6,523
36	565,470	285,596	279,874	6,601
37	558,869	282,296	276,573	6,678
38	552,191	278,944	273,247	6,756
39	545,435	275,538	269,897	6,841
40	538,594	272,073	266,521	6,931
41	531,663	268,544	263,109	7,027
42	524,636	264,945	259,678	7,127
43	517,509	261,280	256,219	7,236
44	510,273	257,534	252,729	7,348
45	502,915	253,708	249,207	7,467
46	495,448	249,796	245,652	7,592
47	487,856	245,795	242,061	7,722
48	480,134	241,700	238,434	7,857
49	472,277	237,508	234,769	7,997
50	464,280	233,216	231,064	8,141
51	456,139	228,821	227,318	8,414
52	447,725	224,195	223,530	8,590
53	439,135	219,437	219,698	8,761
54	430,374	214,552	215,822	9,259
55	421,115	209,539	211,576	9,583
56	411,532	204,395	207,137	9,909
57	401,623	199,114	202,509	10,245
58	391,378	193,686	197,692	10,593
59	380,785	188,102	192,683	10,958
60	369,827	182,360	187,477	11,338
61	358,489	176,421	182,068	11,737
62	346,752	170,303	176,449	12,149
63	334,603	163,989	170,614	12,572
64	322,031	157,474	164,557	13,002
65	309,029	150,754	158,275	13,430
66	295,599	143,833	151,766	13,846
67	281,753	136,718	145,035	14,244
68	267,509	129,421	138,088	14,607
69	252,902	121,963	130,939	14,925
70	237,977	114,370	123,607	15,184
71	222,793	106,675	116,118	15,369
72	207,424	98,919	108,505	15,468
73	191,956	91,149	100,807	15,479
74	176,477	83,416	93,071	15,383
75	161,124	75,777	85,347	15,136
76	145,988	68,294	77,694	14,759
77	131,199	61,026	70,173	14,249
78	116,880	54,036	62,844	13,726
79	103,154	47,381	55,773	13,021
80	90,133	41,115	49,018	12,214
81	77,919	35,283	42,636	11,326
82	66,593	29,922	36,671	10,355
83	56,238	25,060	31,181	9,352
84	46,886	20,711	26,175	8,324
85	38,562	16,877	21,685	7,300
86	31,262	13,549	17,713	6,298
87	24,964	10,700	14,264	5,346
88	19,621	8,325	11,296	4,459
89	15,162	6,300	8,862	3,653
90	11,509	4,770	6,739	2,933
91	8,576	3,510	5,066	2,310
92	6,266	2,531	3,735	1,781
93	4,485	1,787	2,698	1,343
94	3,142	1,234	1,908	989
95	2,153	833	1,320	713
96	1,440	548	892	500
97	940	352	588	342
98	598	220	378	228
99	370	134	236	147
100	223	79	144	98
101	131	46	85	57
102	74	25	49	33
103	41	14	27	19
104	22	7	15	10
105	12	4	8	6
106	6	2	4	3
107	3	1	2	2
108	1		1	1

NOTE.—The annual rate of mortality of males of all ages is 1 in 39.91, and of females, 1 in 41.85.

EXPECTATION.

AGE.	MALE.	FEMALE.	AGE.	MALE.	FEMALE.	AGE.	MALE.	FEMALE.	AGE.	MALE.	FEMALE.	AGE.	MALE.	FEMALE.
0	39.91	41.85	20	39.[illegible]	40.29	40	26.06	27.34	60	13.53	14.34	80	4.03	5.26
1	46.65	47.31	21	38.80	39.63	41	25.39	26.69	61	12.96	13.75	81	4.06	4.98
2	48.83	49.40	22	38.13	38.98	42	24.73	26.03	62	12.41	13.17	82	4.41	4.71
3	49.61	50.20	23	37.46	38.33	43	24.07	25.38	63	11.87	12.60	83	4.17	4.45
4	49.81	50.43	24	36.79	37.68	44	23.41	24.72	64	11.34	12.05	84	3.95	4.21
5	49.71	50.33	25	36.18	37.04	45	22.76	24.06	65	10.82	11.51	85	3.73	3.98
6	49.39	50.00	26	35.44	36.39	46	22.11	23.40	66	10.32	10.98	86	3.53	3.70
7	48.92	49.53	27	34.77	35.75	47	21.46	22.74	67	9.83	10.47	87	3.34	3.56
8	48.37	48.98	28	34.10	35.10	48	20.82	22.08	68	9.36	9.97	88	3.16	3.36
9	47.74	48.35	29	33.43	34.46	49	20.17	21.42	69	8.90	9.48	89	3.00	3.18
10	47.05	47.67	30	32.76	33.81	50	19.54	20.75	70	8.45	9.02	90	2.84	3.01
11	46.31	46.95	31	32.09	33.17	51	18.90	20.09	71	8.03	8.57	91	2.69	2.85
12	45.54	46.20	32	31.42	32.53	52	18.28	19.42	72	7.62	8.13	92	2.55	2.70
13	44.76	45.44	33	30.74	31.88	53	17.67	18.75	73	7.22	7.71	93	2.41	2.55
14	43.97	44.66	34	30.07	31.23	54	17.06	18.08	74	6.85	7.31	[illegible]	2.29	2.42
15	43.18	43.90	35	29.40	30.59	55	16.45	17.43	75	6.49	6.93	95	2.17	2.29
16	42.40	43.14	36	28.73	29.94	56	15.86	16.79	76	6.15	6.56	96	2.06	2.17
17	41.64	42.40	37	28.06	29.30	57	15.26	16.17	77	5.82	6.21	97	1.95	2.06
18	40.90	41.67	38	27.39	28.64	58	14.68	15.55	78	5.51	5.88	98	1.85	1.96
19	40.17	40.97	39	26.72	27.99	59	14.10	14.94	79	5.21	5.56	99	1.76	1.86
												100	1.68	1.79

The mean lifetime of males is 39.91 years, and of females, 41.85.

DEPARTMENT OF PUBLIC BUSINESS.

A Complete Digest of Parliamentary Law and Rules.

THE origin of Parliamentary Law is to be found in the customs and rules of the British Parliament, the first deliberative body of the modern world. When the Jutes and Saxons left their over-crowded homes in the Low Dutch Lands and sailed to England, they carried with them the *Witena Gemote*, the root from which has sprung every Congress and Parliament, every Town Meeting and Convention, every Caucus and Debating Society which the Anglo-Saxon race in the Old World, or the New, has held.

Set rules governing the proceedings of Parliament began first to be established about A. D. 1180, so that now Parliamentary Science is about seven hundred years old. In the course of time these rules became more extended and exact, the conduct of public meetings was reduced to a science, until at the present day the man who is not familiar with them is apt to expose himself as one of imperfect education, and to make blunders which bring himself into ridicule, and the cause which he is supporting into danger. In America, where every matter, grave or light, affecting the public, or any part of it, is promptly made the subject of a meeting, the man who has not Parliamentary Law and Practice at his fingers' ends is compelled either always to take a back seat and let less able men come forward, or else be in constant danger of an absurd display of ignorance unworthy of an American citizen.

Fortunately, however, the whole subject is easily mastered, and easily retained in the memory. It is based upon certain clearly laid down principles, and if we were asked to give in one sentence a comprehensive definition of Parliamentary Law, we should promptly answer that it was common sense divided into rules. Those things that appear strange are really founded upon reason, and the more the student attacks the subject the more evident do its harmonies appear. Anyone who will carefully study the following digest will thoroughly master the subject.

CALLING A MEETING.

It would be much easier to make a list of the subjects for which meetings should not be called than of those for which they should. Generally, all those matters which affect a considerable part of the community, of the church, or of the business to which one belongs, are proper matters for counsel and discussion among friends, and for meetings among citizens. The forms used in calling meetings should be very brief and pointed,

intimating plainly what the gathering is for, where and when it is to meet. For instance, forms to be printed in the newspapers should take this shape:

NOTICE.—The members of the Second Presbyterian Church are requested to meet at Mr. James Kyle's residence, 241 Walker street, on Tuesday evening, January 15th, at eight o'clock, to consider ways and means of rebuilding the parsonage.

Or thus:

DEMOCRATS OF THE THIRD WARD, ATTENTION!

A mass meeting of the Democrats of the Third Ward will be held at Lafayette Hall, on Locust and Main streets, on Friday evening, Oct. 3d, at 7:30, p. m., in accordance with the order of the Central Committee, to select three delegates for the City Convention on Saturday, Oct. 4th. The Hon. C. F. Pease, Judge Bradley Adams, Sheriff Porson, and others, will address the meeting.

Sometimes it is necessary that meetings should be called without publicity, when a form like this might be used:

[*CONFIDENTIAL.*]

ST. LOUIS, Jan. 12th, 1893.

JAMES ASHTON, ESQ.,
Ashton & Co., Grocers.

Dear Sir:

Your attention is called to the fact that the retail dealers in coffee are cutting prices until there is little or no profit left in the trade. Quite a number of us have agreed to meet at the Magnolia Club next Saturday evening, to discuss the situation, and see if some measures can not be taken which will enable all of the firms to do a more satisfactory business than at present. Please either be present yourself, or send a representative empowered to act for you, and oblige Yours very respectfully,

SPOTTS & TREMAINE.
J. R. OSGOOD & CO.
H. A. MILLER & SON.

These forms might be greatly increased in number, but the reader will see the shape upon which it is best to found them. Be sure that written notices are sent to all interested, and that printed ones are inserted several times before the event which they advertise is to occur.

ORGANIZING A MEETING.

As soon as a sufficient number have gathered together at the place of meeting, some gentleman—and it is well that the persons calling the meeting should select this person with care; it is best to choose some well-known and representative citizen—will mount the speakers' stand and rap with the gavel on the table until the assembly is brought to order. He will then nominate some person present for chairman, using the simple form, "I move that Mr. John Gilkeson act as chairman of this meeting." When the motion is seconded he will at once put it to the house, saying, "It is moved and seconded that John Gilkeson act as chairman of this meeting. Those in favor will say 'aye'." Those in favor of Gilkeson will vote "aye" in a clear tone of voice. The temporary chairman will continue, "Those opposed say 'no'." If Mr. Gilkeson is defeated other names are proposed until a chairman is elected, when the one chosen will be escorted to the chair, and the gavel handed to him by the temporary chairman, who at once leaves the stand and takes a seat among the members. The chairman raps for order and after a word or two of thanks for the honor conferred upon him should proceed to lay clearly before the meeting the purpose for which it has been called. This is not the time for eloquence or for attempts at fine speaking. The chairman should endeavor to frame his remarks so that every person in the hall will understand clearly and definitely just what the matter for discussion is. It is in good taste for the chair to call upon any other member of the meeting to express the purpose for which it has been called if the chairman does not feel himself thoroughly able to explain it. But if the chair means to call upon some other member to speak, he should first proceed to the election of a secretary, who, when elected, will read the call, and the chair will then call on the person whom he wishes to address the house; otherwise the secretary is not usually chosen until after the president has spoken.

GETTING TO WORK.

When the secretary has been elected and the purpose of the meeting stated, the next duty of the chairman is to get the assembly to work with as little delay as possible. Suppose, for example, it is proposed to rebuild the church parsonage lately destroyed by fire. The chairman will say, "Gentlemen, you have heard the reasons why this meeting has been called. What is the pleasure of the house?"

A member will rise to his feet and say, "Mr. Chairman."

The chairman will look towards the speaker and say, "Mr. McIntyre," or, if he does not know the gentleman's name, he will say, "The gentleman to my right," indicating the speaker with a wave of his hand. The purpose of this is to draw the attention of the meeting to the person about to speak. Mr. McIntyre then says, "I move that a committee of three be appointed by the chair to report ways and means of raising $5,000 for the rebuilding of the parsonage."

This motion being seconded, the chair announces, "It is moved and seconded that a committee of three to report ways and means of raising $5,000 to rebuild the parsonage be appointed by the chair." The matter now becomes debatable, and any member may rise and address the chair as to the propriety or impropriety of appointing such committee. When the discussion seems to be concluded, the chair will ask, "Are you ready for the question?" To which the members will respond by calling, "Question!" "Question!" The chair will then very distinctly repeat the motion so that all can hear it clearly: "It is moved and seconded that a committee of three be appointed by the chair to report ways and means of raising $5,000 to rebuild the parsonage. Those in favor of the motion will say 'aye.'" The ayes vote. "Those opposed will say 'no.'" The noes vote. If the chairman thinks the ayes are in a majority he will say, "The ayes seem to have it," and then, after a pause, if no one calls for a division, "The ayes have it." If a division is called for, however, the chairman will call upon those in favor of the motion to take one side of the hall and those opposed to go to the other, when he may appoint tellers to count the votes, or count them himself. Or he may make a division by causing each party to raise their hands in turn, or to rise up from their seats and remain standing while being counted. The motion having carried, the chair will proceed to appoint the committee, remembering that Parliamentary Etiquette demands that the person who moved the appointment shall be be made chairman of the committee. The chair will also decide, as it was not incorporated in the motion, when the report shall be made. If it is probable that the work can be done in a half hour or an hour, he will order the committee to report in that time; if longer, it is wiser to adjourn over to another evening. The committee having gone out to work, and there being no business before the assembly, the chair may announce a recess, or call upon some one present for a speech, a

recitation or a song; in this way, or in conversation, the interval may be passed. When the committee is ready to report they come back to the hall and announce their presence to the chairman. He raps with the gavel for order and announces, "The committee is ready to report. Mr. McIntyre, please read your report."

The report is read by the Chairman of the Committee, and at its conclusion some member moves its adoption. This being seconded, the Chair announces: "It is moved and seconded that the report of the committee which you have just heard read be adopted." This opens discussion, after which the motion is voted on as before. The business of the evening being concluded, some one moves to adjourn. It is seconded, and this motion is voted just as any other. If the matter must be taken up again later, the date to which the body is to adjourn should always be incorporated in the motion. When the motion is carried, the Chairman announces the fact and the meeting ends.

How to Manage a Convention.

CONVENTIONS differ from ordinary meetings both in their composition and in the customs which are observed. The frequency of their occurrence and the strict manner in which members are held to Parliamentary Rules make it necessary for every delegate to thoroughly master the niceties of their organization and government, and, although in the pages that follow the broad principles of Parliamentary Law are laid down so that those who run may read, it is necessary here to call attention to the peculiarities which make Conventions differ from other deliberative bodies. Conventions are made of delegates chosen either by sections of a political party or by divisions, councils, encampments, or lodges of a society. In all cases the delegate must be properly accredited to the general body, and one of the first things to see to is that these credentials are in proper shape.

TEMPORARY ORGANIZATION.

A Convention organizes temporarily before it can get to work. A Chairman, a Secretary, with several assistants, and several Sergeants-at-Arms are chosen after the usual manner. They are the result of nomination and election just as in any other deliberative body, but it is understood that their functions will cease as soon as the Permanent Organization is perfected. It is generally understood beforehand who is to be selected Temporary Chairman, however, and although the tenure of office is brief it is quite an important post. Delegates will always do well to act slowly during the temporary organization, as it has frequently happened that it alone has decided the whole work which the body had assembled to do. The custom is to choose the temporary organization by a *viva voce* vote, and usually the delegates and the rest of the world help along in the voting with all their lungs.

THE COMMITTEES.

The temporary organization has for its sole purpose the selection of the Committees whose work must be done before the Convention can go to business. These are the Committees:

On Credentials.
On Permanent Organization.
On Order of Business.
On Rules.
On Resolutions.

Although it is common to join these last two committees into one.

Every Convention consists of delegations, and each delegation consists of delegates. When the Chairman calls for the Committee on Credentials the delegations each name one of their number to be a member of that Committee. So with Permanent Organization, Order of Business and Rules and Resolutions. Each delegation should have one representative on each Committee. As soon as the names are given in the Committees retire and a recess is taken.

THE COMMITTEES AT WORK.

The duties of each Committee are plainly indicated by their names. The credentials of each delegate should be turned in as rapidly as possible; generally they are put in the hands of the

members of the Credential Committee from the delegation, but sometimes contests occur, and this is the time for the contest to begin properly. In political conventions some of the most important work is done by the Order of Business Committee. It is very vital in what order candidates shall be nominated. All of this has to be settled at once, and the friends of a candidate, if they are afraid that other candidates have sold them out, should always try to get their nomination fixed at the beginning of the schedule, because they can thus make the doubtful ones show their hands at once. The Committee on Permanent Organization must supply a full list of names for chairman, secretaries, sergeants-at-arms, pages, etc., for the convention. The Committee on Rules always report the rules governing Congress, and the Resolutions Committee put the platform, as it is called, in shape.

THE CONVENTION AT WORK.

When the recess ends, the committees should all be ready to report, which they do in this order:

Credentials.
Permanent Organization.
Order of Business.
Rules and Regulations.

The Credentials Committee gives a full list of delegates entitled to sit, the Permanent Organization names the officers, the Order of Business reports in what succession the convention shall address itself to the business before it, the Rules and Resolutions give shape and purpose to the whole. Each committee report is acted upon as soon as it is read, usually by a viva voce vote, and, all being accepted, the convention gets to work. The first step is for each delegation to select a chairman, who acts as spokesman for it. This can be done in the intervals between the reports. The permanent officials are installed, generally with short speeches, and the order of business is taken up. The chairman orders the secretary to call the roll of delegations for nominations, for Governor, for instance. Two or three counties may be called without any nominations (for it is always understood beforehand who is to make the nominating speeches) until Butler County is reached. Then the gentleman who has been selected arises, and, calling attention to the eminent services and peculiar fitness of the Honorable Allen Blaisdell, nominates him for Governor. Another county is reached, and Mr. James Pierson is nominated; perhaps four or five more and Blaisdell is seconded, and so on until all the candidates for Governor are fairly in the field. The voting in conventions is peculiar. As soon as the nominations close, each delegate should hand to the chairman of his delegation a piece of paper with the name of the person he votes for upon it. When Andrews County is called the chairman rises and announces "Andrews County gives three for Blaisdell, two for Pierson and one for Holmes." When the vote is all in, the totals are handed to the president, who announces: "Total vote cast, 242; necessary to a choice, 122. Pierson, 98; Blaisdell, 84; Holmes, 53; Dawes, 7. There being no election, the convention will proceed to vote again." Which is continued until by a clear majority a candidate has been chosen. When a candidate has been selected he should thank the convention for its preference, and the defeated candidates should also come forward and express their submission to the will of the party.

TRADING.

Trading is the name given to the transaction whereby a delegation, anxious to secure the nomination of their friend to office, agree to vote for other candidates who are running for other offices, in return for support of their nominee. This is assuming greater proportions every year, and the only note to be made upon the practice is that usually, from bad faith and treachery, it is a very uncertain one. Pledges are easily secured, but kept with difficulty. In this age of combinations the men who do not combine are sure to be defeated, but it is to be regretted that American politics should give such a premium to deceit as the "trading" done in conventions offers.

Things to be Remembered.

Seven Things a Chairman Should Remember.

1st. Take the chair promptly at the time for the meeting to open.

2nd. Always rise to your feet when putting a question. All your remarks to the house should be made standing.

3rd. Order is best maintained by a rigid enforcement of parliamentary law.

4th. Except in vote by ballot, the chairman can only vote when the meeting is equally divided, or when his vote given to the minority would make the division equal.

5th. The chairman should familiarize himself thoroughly with the purposes of the meeting.

6th. Common sense, decision and firmness are absolutely necessary to a successful president.

7th. The president's three duties are: to preserve order, to put questions, and to keep the house strictly to the business in hand.

Six Things a Secretary Should Remember.

1st. Provide the necessary stationery for the performance of the duties of the secretary.

2nd. In reading minutes and papers pitch the voice to reach the furthest persons in the room.

3rd. Do not attempt to write up minutes during a meeting—take full notes of everything that happens.

4th. Preserve all papers carefully. Do not allow members to remove them after they are read.

5th. See to it that all committees are properly warned of their appointment, and of the business they are to do.

6th. In writing minutes make them as short as possible, but include every important matter.

Four Things a Member Should Remember.

1st. Unless the chair is assisted by every member in the maintenance of order, business will be retarded.

2nd. Always rise when about to speak, and address the chairman alone. Be silent until he makes the necessary recognition.

3rd. Be careful to keep to the point in your remarks, and never speak twice on a matter while there are other members waiting to be heard.

4th. That speaker is listened to with attention who only speaks when he has something pertinent to say.

THREE HUNDRED POINTS OF ORDER.

DECIDED AT ONE GLANCE, ON A SINGLE PAGE.

BLANKS IN COLUMNS AFFIRM STATEMENTS AT THE HEAD--THE NEGATIVE DENIES THEM.

* Not debatable when another question is before the House.
† An affirmative vote on this question cannot be reconsidered.
a Limited debate only on the propriety of postponement allowed.
b May be moved and entered on the record when another has the floor, but may not stop the business then in progress; may be called up by the mover as soon as such business is disposed of, and it then takes precedence of all other questions exept "to adjourn," or "to fix time to which to adjourn."
c Not debatable when decision is in a matter of breach of decorum.
d Can be made *before* debate has commenced *only*.

	Requires to be seconded.	Is debatable.	May be amended.	Can be reconsidered.	Is in order when another has the floor.	Allows reference to main question.	Requires two-thirds vote.	Rank of precedence.
Motion to amend	.....	.....	.....	.....	no	no	no	8th
Motion to amend an amendment	.....	.....	no	.....	no	no	no	
Motion to amend rules	.....	.....	.....	.....	no	no	.....	
Motion to adjourn	.....	no	no	no	no	no	no	2d
Motion to fix time to which to adjourn	.....	....*	.....	.....	no	no	no	1st
Call to order	no	no	no	.....	.....	no	no	
Motion to close debate	.....	no	.....	.....	no	no	.....	
Motion to commit	.....	.....	.....	.....	no	.....	no	7th
Motion to limit debate	.....	no	.....	.....	no	no	.....	
Motion to extend limits of debate	.....	no	.....	.....	no	no	no	
Motion to lay on the table	.....	no	no	....†	no	no	no	4th
Motion to take from the table	.....	no	no	....†	no	no	no	
Motion for order of the day	no	no	no	.....	.....	no	no	3rd
Motion to postpone indefinitely	.....	.....	no	.....	no	.....	no	9th
Motion to postpone to a fixed time	.....	....a	.....	.....	no	no	no	6th
Motion for previous question	.....	no	no	.....	no	no	.....	5th
Motion to reconsider a debatable question	.....	.....	no	no	....b	.....	no	
Motion to reconsider an undebatable question	.....	no	no	no	....b	no	no	
Motion to refer a question	.....	.....	.....	.....	no	.....	no	
Motion to discuss a subject	no	no	no	.....	.....	no	.....	
Motion to make subject a special order	.....	.....	.....	.....	no	no	.....	
Motion to substitute, in nature of an amendment	.....	.....	.....	.....	no	no	no	
Motion to suspend rules	.....	no	no	no	no	no	.....	
Motion to take up question out of its proper order	.....	no	no	.....	no	no	.....	
Motion to withdraw a motion	.....	no	no	.....	no	no	no	
d Objection to consideration of question	no	no	no	.....	.....	no	.....	
Motion to read papers	.....	no	no	.....	no	no	no	
Question on priority of business	.....	no	.....	.....	no	no	no	
Question of privilege	.....	.....	.....	.....	no	no	no	
Motion to appeal from decision of Chair	.....	c	no	.....	.....	no	no	
Leave to continue speaking after breach of decorum	.....	no	no	.....	no	no	no	
Motion that Committee rise	.....	no	no	no	no	no	no	

FORMS IN WHICH QUESTIONS MAY BE PUT.

On motion for previous question, the form observed is: "Shall the main question be put?" This if carried ends debate.

On motion for order of the day: "Will the House now proceed to the order of the day?" This if carried supersedes intervening motions.

When objection is raised to considering question: "Shall the question be considered?"

On motion to strike out words: "Shall the words stand part of the motion?" If this be not carried, the words are struck out.

On an appeal from decision of Chair: "Shall the decision be sustained as the ruling of the House?"

When yeas and nays are ordered by the House: "As many as are in favor of ——— will answer *aye;* those opposed will answer *no,* when their names are called."

When a member has been counted on the side *against* which he intended to vote, the presiding officer can order the amendment of the vote, having first asked the member: "On which side he intended to give his voice?" This correction can be made only on the member's own representation.

MEMORIALS AND PETITIONS.

The right of Petition: is an expression frequently met with in English history. The earnestness with which the people of that country strove for the maintenance of the right is a proof of its great importance. The right of Petition necessarily implies the right of being heard and heeded.

The bodies to whom petitions are addressed are first of all Congress, the President and the executive departments of the Government, State Governors and Assemblies, Mayors, City Councils, and lastly public and private corporations of every kind. Certain set forms are used in addressing these assemblies and persons, and although the matter may vary infinitely it must always be put in a respectful and decorous manner. The memorial to Congress presented by the Mississippi River Convention, which assembled in St. Louis October, 1881, is one of the best exemples of this kind extant. It will be found first among the forms which follow, necessarily abbreviated to fit the space at our disposal.

MEMORIAL TO CONGRESS.

To the Senate and House of Representatives of the United States, in General Assembly convened:

The Executive Committee of the Mississippi River Improvement Convention, held in the city of St. Louis, Missouri, in October last, under one of the resolutions unanimously adopted, were charged with the duty of preparing and presenting to the Congress of the United States a memorial embodying the action of the Convention, accompanied with such statistics and information as the Committee might deem expedient.

The Convention which committed this grave duty to your memorialists was one representing, in an unusual degree, the commercial and industrial power of the country. The highest order of talent, judgment matured by careful thought and large experience of the great question so intimately connected with the progress and development of the imperial domain comprehended, met in council, and the important question was considered by men representing twenty States and three Territories, and half the population of the Union. Not less remarkable was the variety of interests gathered and given utterance to there. The farmers and merchants, the bankers, the manufacturers, the professions, and the heads of great transportation lines by river and by rail, with earnest zeal discussed, and with striking unanimity reached the conclusion embodied in the resolutions adopted by the Convention, and which it now becomes the duty of your memorialists to urge upon the National Legislature.

* * * * * * * * * * * *

The aid now asked, and the benefits sought to be received through the liberal action of the Government, is not alone for the present, nor for the near succeeding years, but stretches to the distant future—that eventful and busy future for which it is the duty and business of statesmanship to prepare. The Valley States and those in the farther West and Southwest, bound together by the chords of a common interest, are fast gaining the political power which will make them the grantors instead of the solicitors of favors through the instrumentality of the Government. A compliance now with their reasonable demands will be gratefully recognized, and will hereafter find reciprocal response. A refusal will breed an antagonism of sections which may lead to sectional issues.

* * * * * * * * * * * *

And now we ask, can there be a more propitious time for the National Legislature to recognize the value and importance of the work?

The products of the Mississippi Valley, carried cheaply by the river route (and through its influence less expensively by rail) to the outer markets, have thrown in the balance of the world's trade grandly in our favor. Since this power and influence has been recognized, for the first time in our history we now have among kindred commercial nations the rank of creditor. The long-sought position has been obtained through the agency of cheap transportation from the interior to the sea; a policy we can only maintain by carrying the thought to the utmost conclusion

The report of the Secretary of the Treasury, and favorably presented by President Arthur in his message, shows a surplus receipt of over $100,000,000 for the last fiscal year, and the question suggests itself, how can this accruing surplus be properly and most beneficially expended? Those for whom we speak do not complain of the burdens of taxation. They do not ask for the present reduction or speedy extinguishment of the national debt, but they do ask that this surplus shall in part be applied to their great and cheap thoroughfares, feeling that when this is done they can bear the burdens imposed by the Government in the form of taxes much easier than those resulting from defective and crippled transportation. Now in the days of our prosperity, they ask those to whom they have entrusted their rights, to lay aside local antagonisms and sectional jealousies, to compass the height of the argument and conclusions presented, and meet the action of the Convention by the exercise of a statesmanship as broad and comprehensive as that which marked its deliberations.

_____,
_____,
_____,
Committee.

_____,
Secretary.

PETITION TO THE PRESIDENT.

To Chester A. Arthur, President of the United States.

The Petitioners undersigned respectfully solicit of you the appointment of W. E. Hunter as cadet at large to West Point. The young man is the son of Major Wilson Hunter who distinguished himself and was severely wounded at the battle of Lookout Mountain. He is twenty years of age, of perfect form and robust health, and is a graduate of Madison University. He carried off the highest honors of the institution in mathematics and drawing, and is now engaged in the office of Penny & Rubold, Civil Engineers. We ask this of you because our Representative in Congress has already, without knowing of Hunter's desire, made his selection.

We refer to accompanying papers, A, B, C and D.

With the greatest respect,

JAMES T. MORGAN.
GEO. L. VENNOR.

Galena, Ills., Oct. 14, 1882.

A. Letter of Hunter to Vennor.
B. " Personal Friend of President.
C. Printed slip.
D. Letter of Dean of Madison University.

A.

My Dear Mr. Vennor:

You have so frequently shown your kind feelings towards me that I am sure you will not think me too presumptive in asking your assistance in a purpose that I have resolved upon. It is that I should

go to West Point. You know how well fitted I may be for a cadetship. Should my purpose meet with your approval, I throw all my hopes of future success in life on you, and I know no one in this wide world so willing and so well able to help me.

With the most sincere regard, Ever yours,
Galena, Oct. 6th, 1882. W. E. HUNTER.

B.

SEALED LETTER.

My Old Friend:

Should the application for the appointment of Hunter be favorably received by you, you will not only confer a favor on a most worthy object, but settle another matter which will be a good stroke of policy for our district.

A man named Trevors is looking with hungry eyes at the position of U. S. Collector for this district, in which we want our friend Mayville retained. Trevor's main dependence would be on Morgan and Vennor. Now Morgan is secretary of the Illinois State Republican Committee and was a power in the last convention. Vennor is a quiet capitalist whose subscriptions have been very heavy in any Republican necessity. You would find it hard to refuse either. Appoint Hunter and you save Mayville. They could not expect you to make a second move on their application.

Pardon the length of this.

As ever your most devoted,
Galena, Oct. 13th. MORRIS HENLEY.

C.

PRINTED SLIP.

From the Galena Times, Aug. 18th, 1882.

* * * * * * * * * * * *

This happy escape from what would have been a most frightful disaster is all owing to the presence of mind of a young surveyor in the employ of Penny & Rubold. We predict for Mr. Hunter, the hero whose coolness and courage were the means of saving so many lives, a most brilliant future.

D.

Messrs. Penny & Rubold.

GENTLEMEN:—In recommending my young friend W. E. Hunter to you, I can say with truth he was as a pupil all that could be desired, apt and studious. His proficiency in mathematics is almost phenomenal. Respectfully,

MIRON SEYMOUR,
Feb. 12th, 1882. *Dean of Madison University.*

PETITION TO THE GOVERNOR.

To Thos. T. Crittenden, Governor of the State of Missouri.

Your Petitioner respectfully represent that the office of Clerk of the County Court of Dayton County in this state is now vacant by reason of the decease of James Allison, the regularly elected incumbent. Your petitioner would further represent that until the next general state and county election the law requires that the vacancy be filled by appointment of the Governor. Now feeling myself capable of filling the position, and being thoroughly acquainted with the duties of the office, I respectfully make application and solicit you to appoint me Clerk of the Dayton County Court. ROBERT AMES.

With our most cordial recommendation.

HENRY WARREN, } Justices of the
THOMAS HARRISON, } County Court.
WILLIAM HENDERSON.
S. K. ATCHISON.
RICHARD LORD, Sheriff.
JESSE R. DUNLAP, Minister.

PETITION TO A CORPORATION.

To the Board of Directors of the Dubuque Gaslight Co.

GENTLEMEN:—As the vacant lot adjoining your works and owned by you would suit my purpose, I respectfully solicit the use of it for the storage of cement and salt. Should it not be your intention to improve the lot for some time, the collection of a small rent from me would be better than allowing such a property to lie idle.

Respectfully, ALEX. GOLDMAN.

PETITION TO A STATE LEGISLATURE.

To the Honorable, the Senate and House of Representatives of the State of ———, in Legislature assembled:

The undersigned petitioners, residents and tax payers of the city of ———, respectfully represent that they

* * * * * * * * * * * *

and that they your petitioners fully believe that such action on your part would be in favor of the best interest of the city of ———, and would be in complete accord with the will of the majority of its citizens, and your petitioners as in duty bound will ever pray, &c., &c.

Signed, ———.
———.
———.

PETITION TO CITY AUTHORITIES.

To the Mayor and Common Council of the City of ———:

Gentlemen: Your petitioners, citizens and tax-payers of the second, fifth and sixth wards of this city, respectfully solicity your honorable body to extend the system of sewerage, already working in such admirable order in the third and fourth wards, through our wards. The expense may be heavy but our need is still greater; for all the territory contiguous to the low grade streets, Adams, Pine and Lincoln, is in extreme danger, should the pestilence now raging in the Southern cities come this far north. We respectfully represent that the largest portion of the city revenue is collected in our wards and that the proposed extension will be paid for wholly by the property-owners most benefited by the sewers.

Signed, ———.
———.
———.
———.
———.

(*City, State, Date.*)

PETITION TO A COUNTY COURT.

To the Hon. Justices of the ——— County Court:

The undersigned, residents of ——— Township, who are obliged to use the Baldwin road to market with their produce, respectfully inform your honor that the bridge crossing Pear Creek is so badly injured by the last flood that it is now dangerous and cannot be trusted. Hoping you will give the matter immediate attention they earnestly petition your honorable court to order the necessary repairs.

Signed, ———.
———.
———.
———.
———.

(*County, State, Date*)

A REMONSTRANCE.

To the Mayor and Common Council of ——— ———:

Gentlemen: The petition of the undersigned citizens and tax payers of the sixth an seventh wards of this city respectfully represents that they have learned that a petition is now before you praying for the privilege of constructing a railroad along Jackson Street. That if this privilege were granted and a track laid on that street the result would be most injurious to the property fronting thereon and would obstruct the great traffic now continuous on that thoroughfare. They also suggest that there is no necessity for such railroad, as the one on Henry street two blocks south is sufficient for the needs of the public. They therefore respectfully and earnestly remonstrate against the granting of said privilege by your body.

Signed, ———.
———.
———.
———.
———.

(*City, State, Date.*)

LYCEUMS AND DEBATING CLUBS.

THE benefits derived socially and intellectually from attendance at Lyceums or debating societies are so generally conceded that there is no need of argument to urge their formation.

The following form of a constitution and by-laws will give a clear insight into their workings:

Constitution and By-Laws of the Ben Franklin Lyceum.

PREAMBLE.

For our mutual improvement, for the entertainment of our friends and for the cultivation of the amenities of social life, the undersigned agree to form themselves into a debating society.

TITLE.

ARTICLE I.

The name of this society shall be the Ben Franklin Lyceum.

OFFICERS.

ARTICLE II.

The officers of the Lyceum shall consist of a President, Vice-President, Secretary, Treasurer, Librarian and Marshal. They shall be elected annually at the first regular meeting after the 15th of January in each year, and shall continue to perform the duties of their several offices until the installation of their successors, which shall take place at the next meeting after their election.

DUTIES OF OFFICERS.

ARTICLE III.

The PRESIDENT shall preside at all meetings, and shall be ex-officio member of all standing committees, but not of special committees.

The VICE PRESIDENT in the absence of the President shall take the chair, but will not assume his duties in committees unless the President shall so request.

The SECRETARY'S duties shall be threefold—Recording, Corresponding and Financial.

RECORDING.—He shall keep an accurate record of the proceedings of each meeting, be prepared to read them at the ensuing meeting and by indexing or other method be prepared to read on call the record of any business that may have taken place at any former meeting.

CORRESPONDING.—He shall attend to all the correspondence of the Lyceum.

FINANCIAL.—He shall keep the accounts of the Lyceum with the members, with all parties having dealings with the Lyceum, and with the Treasurer. He shall collect and pay over to the Treasurer all dues and fines and other income. He shall write warrants on the Treasurer to be signed by the President for all monies to be paid out.

The TREASURER shall receive from the Secretary all monies of the Lyceum and shall pay out the same only on the production of the Secretary's warrant signed by the President. He shall make a quarterly statement of the funds in his hands, which shall be verified by the books of the Secretary.

The LIBRARIAN shall have charge of all books, periodicals, maps, pictures, globes, curiosities and like articles either owned or borrowed by the Lyceum.

The MARSHAL shall have charge of the hall, furniture, light, fuel, and comfort of the members. He shall act as doorkeeper, usher to visitors, and messenger.

COMMITTEES.

ARTICLE IV.

Immediately after his installation the President shall appoint five standing committees:

THE EXECUTIVE AND FINANCIAL COMMITTEE,
THE LIBRARY COMMITTEE,
COMMITTEE ON LECTURES,
COMMITTEE ON THE SELECTION OF SUBJECTS FOR DEBATE,
COMMITTEE ON CRITICISM.

These committees shall consist of four members each, *i. e.*, three appointed and the President himself.

SPECIAL COMMITTEES for all other purposes shall be elected by the Lyceum.

MEMBERSHIP.

ARTICLE V.

ACTIVE MEMBERSHIP.—Any person of good repute in the community, of either sex, over the age of sixteen years may become a member of the Lyceum by a majority vote of the members present at the next meeting after their proposal; the membership beginning only after signing the Constitution and paying the initiation fee of $1.00.

LIFE MEMBERSHIP.—Any person of good repute, on the introduction of a member and the vote of the society, may become a life member and have the benefit of the library and may attend all meetings and debates on the payment of $10.00.

HONORARY MEMBERSHIP may be conferred by vote of the Lyceum on any person. Honorary members shall pay no fees or dues.

ORDER.

ARTICLE VI.

The proceedings and deliberations of the meetings of the Lyceum shall be governed by the rules of order as shown in the article on Parliamentary Law in Peale's Manual, unless such rules conflict with this Constitution, its Amendments or the By-Laws.

EXPULSION OF MEMBERS.

ARTICLE VII.

For sufficient reason any member may be expelled by a two-thirds vote of the members present at any meeting, provided the Executive Committee has previously considered the matter and informed the member of the proposed action, and that he be given opportunity to defend himself.

TIME OF MEETINGS.

ARTICLE VIII.

The regular meetings of the Lyceum shall be held in the Ben. Franklin Hall at eight o'clock on every Wednesday evening. Special meetings may be called by the President on the request of five members.

AMENDMENTS.

ARTICLE IX.

This Constitution may be altered or amended at any regular meeting by a vote of two-thirds of the members present: Provided that written notice shall have been given of the proposed amendment at a previous meeting.

BY-LAWS.

LIBRARY.

RULE I.

No member shall be allowed to take more than two books from the Library at one time. A fine of one cent per day for each volume shall be collected from each member keeping books more than one week. The Library shall be opened one hour before the regular meetings of the Lyceum.

QUORUM.

RULE II.

Two more than one-half the active members shall constitute a Quorum.

MONTHLY DUES.

RULE III.

Each member shall pay a monthly due of fifty cents. Any member having failed to pay his dues for three months shall be notified by the Secretary; if he does not pay by the end of fourth month his membership shall be forfeited.

DEBATES, RECITATIONS AND SPEECHES.

RULE IV.

The President shall appoint in turn members to take part in the exercises. A week's notice shall be given, and a member failing to fill the appointment without good excuse shall be fined fifty cents.

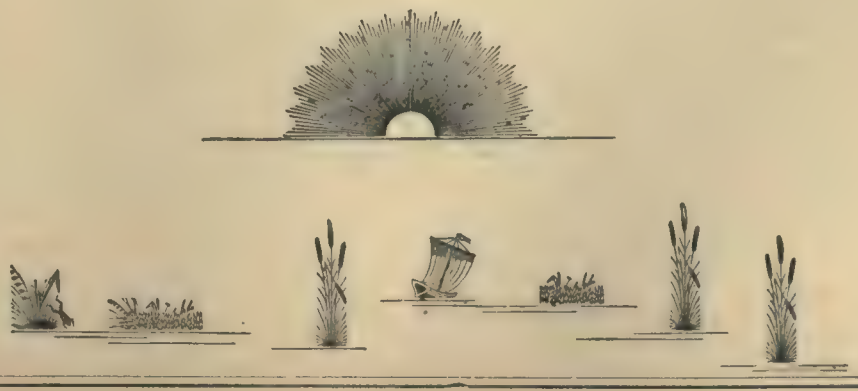
ORDER OF BUSINESS.

RULE V.

Call to Order.
Roll Call.
Reading of Minutes of Last Meeting.
Correspondence.
Reports of Officers.
Reports of Committees.
Good of the Lyceum.
Election of Members.
New Business.
Debate.
Recitation.
Oration.
Criticism.
Adjournment.

QUESTIONS FOR DEBATE.

1. Ought the largest city of a State to be the capital of that State?
2. Will the coal supply of the United States hold out?
3. Must the Chinese go?
4. Has the abolition of slavery improved the condition of the blacks?
5. Is universal suffrage a success?
6. Has the attendance at churches changed the character?
7. Was the Tichborne claimant the true heir?
8. Is the drama immoral?
9. Will the planting of forests increase the rainfall?
10. Should woman have the right of suffrage?
11. Is cremation preferable to burial?
12. Ought Governments to own railroads and telegraphs?
13. Should the President of the United States be elected directly by the people?
14. Does Prohibition prohibit?
15. Should public museums and parks be opened on Sunday?
16. Should foreign languages be taught in the Public Schools?
17. Should the right to vote depend on a property qualification?
18. Are early marriages advisable economically?
19. Have we an aristocracy?
20. Could the Government of the United States do as well without the Senate?
21. Will the colored race become amalgamated with the whites?
22. Are competitive examinations a fair test for the fitness of applicants for office?
23. Should gold be the standard of value?
24. Should there be more Arctic expeditions sent out?
25. Was Washington a military genius?
26. Is the assessment of office-holders for political purposes immoral?
27. Is communism a mistake?
28. Has the visit of Edwin Arnold had any effect on the public taste?
29. Is the co-education of the sexes advisable?
30. Has the Government been too liberal in land grants to railroads?
31. Are inventors sufficiently protected by the patent laws?
32. Should married women be retained as teachers in the Public Schools?
33. Should convict labor be allowed to compete with honest labor?
34. Is the present system of trial by jury the best?
35. Should voting by ballot be introduced into all elective and legislative proceedings?



MAGNA CHARTA.

The Steps in the Growth of American Liberty.

IN the year 1213, on August 25th, in England, was organized a movement of which we now, after so many centuries, feel the effects in our nicely balanced constitutions and equitable codes of laws. The liberties for which our American forefathers battled had been defined and foreshadowed by their ancestors, and the political condition of our thriving country may well be shown as the ripened and mellow fruit from the seed sown nearly seven hundred years ago. On that memorable 25th of August the Prelates and Barons tiring of the tyranny and vacillations of King John, founded a Council and passed measures to secure their rights. After two years of contest, with many vicissitudes, the Barons entered London and the King fled into Hampshire, whence he sent word that he would comply with their demands. By agreement both parties met at Runnymede on the 9th of June. The conference lasted till the 19th, on which day the royal seal was affixed and Magna Charta, the glory of England, was born. It was a comprehensive bill of rights, and though crude in form and with many clauses of merely local value, its spirit lives and will live. Clear and prominent we find the motto we ourselves have followed:

"No tax without representation."

It contained sixty-one articles, the thirty-ninth and fortieth of which have had the most lasting effect, and their sentiments are the very marrow of all our State Constitutions.

The original document is in Latin, but a translation of articles 39 and 40 from English Statutes may give an idea of its whole character.

"39. No freeman shall be taken or be imprisoned or be disseised of his freehold, or liberties or free customs, or be outlawed or exiled, or any otherwise destroped; nor will we pass upon him, nor condemn him, but by lawful judgment of his peers, or by the law of the land.

"40. We will sell to no man; we will not deny or defer to any man, either right or justice."

The Mecklenburg Declaration.

Some thirteen months previous to the signing of the great Declaration of Independence there was drawn up a document in Mecklenburg County, N. C., that was almost a model in wording and sentiment of the great charter of American liberty. There are different accounts of the matter, but the most reliable is this:

At a public meeting of the residents of Mecklenburg County, in the State of North Carolina, held at Charlotte on the 20th day of May, 1775, it was

"*Resolved*, That whenever directly or indirectly abetted, or in any way, form or manner countenanced, the unchartered and dangerous invasion of our rights, as claimed by Great Britain, is an enemy of our country—to America—and to the inherent and inalienable rights of man.

"*Resolved*, That we, the citizens of Mecklenburg County, do hereby dissolve the political bonds which have connected us to the mother-country, and hereby absolve ourselves from all allegiance to the British crown, and abjure all political connection, contract or association with that nation, which has wantonly trampled on our rights and liberties and inhumanly shed the blood of American patriots at Lexington.

"*Resolved*, That we do hereby declare ourselves a free and independent people: are and of right ought to be a sovereign and self-governing association, under the control of no power other than that of our God and the general government of the Congress. To the maintenance of which independence we solemnly pledge to each other our mutual co-operation, our lives, our fortunes, and our sacred honor."

Two other resolutions in the same document, regarding administration of the law and regulating the militia, having no present value, are omitted.

THE DECLARATION OF INDEPENDENCE.

IN CONGRESS, July 4th, 1776.

WHEN, in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume, among the powers of the earth, the separate and equal station to which the laws of nature and nature's God entitle them a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident: That all men are created equal: that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty and the pursuit of happiness. That to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed; that, whenever a form of government becomes destructive of these ends, it is the right of the people to alter or to abolish it, and to institute a new government, laying its foundation on such principles, and organizing its powers in such form, as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate, that governments long established should not be changed for light and transient causes; and accordingly all experience hath shown that mankind are more disposed to suffer where evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such government, and to provide new guards for their future security. Such has been the patient sufferance of these colonies; and such is now the necessity which constrains them to alter their former systems of government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute tyranny over these states. To prove this, let facts be submitted to a candid world.

He has refused his assent to laws the most wholesome and necessary for the public good.

He has forbidden his governors to pass laws of immediate and pressing importance, unless suspended in their operation till his assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other laws for the accommodation of large districts of people, unless those people would relinquish the right of representation in the legislature—a right inestimable to them, and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their public records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved representative houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused, for a long time after such dissolutions, to cause others to be elected; whereby the legislative powers, incapable of annihilation, have returned to the people at large, for their exercise, the state remaining, in the meantime, exposed to all the dangers of invasion from without, and convulsions within.

He has endeavored to prevent the population of these states; for that purpose obstructing the laws for naturalization of foreigners, refusing to pass others to encourage their migration hither, and raising conditions of new appropriation of lands.

He has obstructed the administration of justice, by refusing his assent to laws establishing judiciary powers.

He has made judges dependent on his will alone for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of new offices, and sent hither swarms of officers, to harass our people, and eat out their substance.

He has kept among us, in times of peace, standing armies, without the consent of our legislatures.

He has affected to render the military independent of, and superior to, the civil power.

He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws; giving his assent to their acts of pretended legislation,—

For quartering large bodies of armed troops among us:

For protecting them, by a mock trial, from punishment from any murders which they should commit on the inhabitants of these states:

For cutting off our trade with all parts of the world:

For imposing taxes on us without our consent:

For depriving us, in many cases, of the benefits of trial by jury:

For transporting us beyond the seas to be tried for pretended offenses:

For abolishing the free system of English laws in a neighboring province, establishing therein an arbitrary government, and enlarging its boundaries, so as to render it at once an example and fit instrument for introducing the same absolute rule into these colonies:

For taking away our charters, abolishing our most valuable laws, and altering, fundamentally, the powers of our governments:

For suspending our own legislatures and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated government here, by declaring us out of his protection, and waging war against us.

He has plundered our seas, ravaged our coasts, burnt our towns, and destroyed the lives of our people.

He is, at this time, transporting large armies of foreign mercenaries, to complete the works of death, desolation and tyranny, already begun with circumstances of cruelty and perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the head of a civilized nation.

He has constrained our fellow-citizens, taken captive on the high seas, to bear arms against their country, to become the executioners of their friends and brethren, or to fall themselves by their hands.

He has excited domestic insurrections among us, and has endeavored to bring on the inhabitants of our frontiers the merciless Indian savages, whose known rule of warfare is an undistinguished destruction of all ages, sexes and conditions.

In every stage of these oppressions we have petitioned for redress in the most humble terms; our repeated petitions have been answered only by repeated injury. A prince whose character is thus marked by every act which may define a tyrant is unfit to be the ruler of a free people.

Nor have we been wanting in attention to our British brethren. We have warned them, from time to time, of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity; and we have conjured them, by the ties of our common kindred, to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They, too, have been deaf to the voice of justice and of sanguinity. We must, therefore, acquiesce in the necessity which denounces our separation, and hold them, as we hold the rest of mankind, enemies in war, in peace friends.

We, therefore, the representatives of the United States of America, in General Congress assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the name and by the authority of the good people of these colonies, solemnly publish and declare, That these united colonies are, and of right ought to be, free and independent states; that they are absolved from all allegiance to the British crown, and that all political connection between them and the state of Great Britain is, and ought to be, totally dissolved; and that, as free and independent states, they have full power to levy war, conclude peace, contract alliances, establish commerce, and do all other acts and things which independent states may of right do. And for the support of this declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our lives, our fortunes and our sacred honor.

The foregoing Declaration was, by the order of Congress, engrossed, and signed by the following members:

JOHN HANCOCK.

NEW HAMPSHIRE.
Josiah Bartlett,
William Whipple,
Matthew Thornton.

MASSACHUSETTS BAY.
Samuel Adams,
John Adams,
Robert Treat Paine,
Elbridge Gerry.

RHODE ISLAND.
Stephen Hopkins,
William Ellery.

CONNECTICUT.
Roger Sherman,
Samuel Huntington,
William Williams,
Oliver Wolcott.

NEW YORK.
William Floyd,
Philip Livingston,
Francis Lewis,
Lewis Morris.

NEW JERSEY.
Richard Stockton,
John Witherspoon,
Francis Hopkinson,
John Hart,
Abraham Clark.

PENNSYLVANIA.
Robert Morris,
Benjamin Rush,
Benjamin Franklin,
John Morton,
George Clymer,
James Smith,
George Taylor,
James Wilson,
George Ross.

DELAWARE.
Cæsar Rodney,
George Read,
Thomas M'Kean.

MARYLAND.
Samuel Chase,
William Paca,
Thomas Stone,
Charles Carroll, of Carrollton.

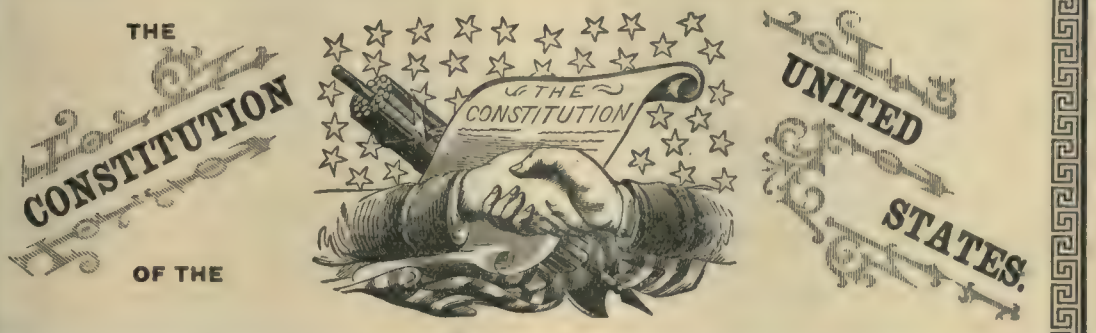
VIRGINIA.
George Wythe,
Richard Henry Lee,
Thomas Jefferson,
Benjamin Harrison,
Thomas Nelson, Jr.,
Francis Lightfoot Lee,
Carter Braxton.

NORTH CAROLINA.
William Hooper,
Joseph Hewes,
John Penn.

SOUTH CAROLINA.
Edward Rutledge,
Thomas Heyward, Jr.,
Thomas Lynch, Jr.,
Arthur Middleton.

GEORGIA.
Button Gwinnett,
Lyman Hall,
George Walton.

Resolved, That copies of the Declaration be sent to the several assemblies, conventions and committees, or councils of safety, and to the several commanding officers of the Continental troops; that it be proclaimed in each of the United States, and at the head of the army.



PREAMBLE.

We, the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquility, provide for the common defence, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.

ARTICLE I.

SECTION I.

1. All legislative powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

SECTION II.

1. The House of Representatives shall be composed of members chosen every second year by the people of the several States; and the electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State Legislature.

2. No person shall be a Representative who shall not have attained to the age of twenty-five years, and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State in which he shall be chosen.

3. Representatives and direct taxes shall be apportioned among the several States which may be included within this Union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of Representatives shall not exceed one for every thirty thousand, but each State shall have at least one representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to choose three; Massachusetts, eight; Rhode Island and Providence Plantations, one; Connecticut, five; New York, six; New Jersey, four; Pennsylvania, eight; Delaware, one; Maryland, six; Virginia, ten; North Carolina, five; South Carolina, five, and Georgia three.

4. When vacancies happen in the representation from any State, the executive authority thereof shall issue writs of election to fill such vacancies.

5. The House of Representatives shall choose their speaker and other officers; and shall have the sole power of impeachment.

SECTION III.

1. The Senate of the United States shall be composed of two senators from each State, chosen by the legislature thereof, for six years; and each senator shall have one vote.

2. Immediately after they shall be assembled in consequence of the first election, they shall be divided as equally as may be into three classes. The seats of the senators of the first class shall be vacated at the expiration of the second year, of the second class at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one-third may be chosen every second year; and if vacancies happen by resignation, or otherwise, during the recess of the legislature of any State, the executive thereof may make temporary appointments until the next meeting of the legislature, which shall then fill such vacancies.

3. No person shall be a senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State for which he shall be chosen.

4. The vice-president of the United States shall be president of the Senate, but shall have no vote unless they be equally divided.

5. The Senate shall choose their other officers, and also a president pro tempore, in the absence of the vice-president, or when he shall exercise the office of president of the United States.

6. The Senate shall have the sole power to try all impeachments. When sitting for that purpose, they shall all be on oath or affirmation. When the president of the United States is tried, the chief-justice shall preside: and no person shall be convicted without the concurrence of two-thirds of the members present.

7. Judgment in cases of impeachment shall not extend further than to removal from office, and disqualification to hold and enjoy any office of honor, trust, or profit under the United States; but the party convicted shall nevertheless be liable and subject to indictment, trial, judgment, and punishment, according to law.

SECTION IV.

1. The times, places and manner of holding elections for Senators and Representatives shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by law make or alter such regulations, except as to the place of choosing Senators.

2. The Congress shall assemble at least once in every year; and such meeting shall be on the first Monday in December, unless they shall by law appoint a different day.

SECTION V.

1. Each House shall be the judge of the election, returns and qualifications of its own members, and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent

members, in such manner and under such penalties as each House may provide.

2. Each house may determine the rule of its proceedings, punish its members for disorderly behavior, and, with the concurrence of two-thirds, expel a member.

3. Each House shall keep a journal of its proceedings, and from time to time publish the same, excepting such parts as may in their judgment require secrecy; and the yeas and nays of the members of either House on any question shall, at the desire of one-fifth of those present, be entered on the journal.

4. Neither House, during the session of Congress, shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two houses shall be sitting.

SECTION VI.

1. The Senators and Representatives shall receive a compensation for their services, to be ascertained by law, and paid out of the treasury of the United States. They shall, in all cases, except treason, felony, and breach of the peace, be privileged from arrest during their attendance at the sessions of their respective houses, and in going to and returning from the same; and for any speech or debate in either house, they shall not be questioned in any other place.

2. No Senator or representative shall, during the time for which he was elected, be appointed to any civil office under the authority of the United States, which shall have been created, or the emoluments whereof shall have been increased during such time; and no person holding any office under the United States shall be a member of either house during his continuance in office.

SECTION VII.

1. All bills for raising revenue shall originate in the House of Representatives; but the Senate may propose or concur with amendments as on other bills.

2. Every bill which shall have passed the House of Representatives and the Senate, shall, before it becomes a law, be presented to the President of the United States; if he approve he shall sign it, but if not he shall return it with his objections, to that house in which it shall have originated, who shall enter the objections at large on their journal, and proceed to reconsider it. If after such reconsideration two-thirds of that house shall agree to pass the bill, it shall be sent, together with the objections, to the other house, by which it shall likewise be reconsidered, and if approved by two-thirds of that house, it shall become a law. But in all such cases the votes of both houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the journal of each house respectively. If any bill shall not be returned by the President within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law in like manner as if he had signed it, unless the Congress by their adjournment prevent its return, in which case it shall not be a law.

3. Every order, resolution, or vote to which the concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and before the same shall take effect, shall be approved by him, or being disapproved by him, shall be repassed by two-thirds of the Senate and House of Representatives, according to the rules and limitations prescribed in the case of a bill.

SECTION VIII.

The Congress shall have power—

1. To lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defence and general welfare of the United States; but all duties, imposts, and excises shall be uniform throughout the United States.

2. To borrow money on the credit of the United States.

3. To regulate commerce with foreign nations, and among the several States, and with the Indian tribes.

4. To establish a uniform rule of naturalization, and uniform laws on the subject of bankruptcies throughout the United States.

5. To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures.

6. To provide for the punishment of counterfeiting the securities and current coin of the United States.

7. To establish post-offices and post-roads.

8. To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.

9. To constitute tribunals inferior to the supreme court.

10. To define and punish piracies and felonies committed on the high seas, and offenses against the law of nations.

11. To declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water.

12. To raise and support armies; but no appropriation of money to that use shall be for a longer term than two years.

13. To provide and maintain a navy.

14. To make rules for the government and regulation of the land and naval forces.

15. To provide for calling forth the militia to execute the laws of the Union, suppress insurrection, and repel invasion.

16. To provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States; reserving to the States respectively the appointment of the officers and the authority of training the militia according to the discipline prescribed by Congress.

17. To exercise exclusive legislation in all cases whatsoever, over such district (not exceeding ten miles square) as may, by cession of particular States, and the acceptance of Congress, become the seat of government of the United States; and to exercise like authority over all places purchased, by the consent of the legislature of the State in which the same shall be, for the erection of forts, magazines, arsenals, dockyards, and other needful buildings; and

18. To make all laws which shall be necessary and proper for carrying into execution the foregoing powers vested by this constitution in the government of the United States, or in any department or office thereof.

SECTION IX.

1. The migration or importation of such persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the year one thousand eight hundred and eight; but a tax or duty may be imposed on such importation not exceeding ten dollars for each person.

2. The privilege of the writ of *habeas corpus* shall not be suspended, unless when, in cases of rebellion or invasion, the public safety may require it.

3. No bill of attainder, or *ex post facto* law, shall be passed.

4. No capitation or other direct tax shall be laid, unless in proportion to the census or enumeration herein before directed to be taken.

5. No tax or duty shall be laid on any articles exported from any State. No preference shall be given by any regulation of commerce or revenue to the ports of one State over those of another; nor shall vessels bound to or from one State be obliged to enter, clear or pay duties in another.

6. No money shall be drawn from the treasury, but in consequence of appropriations made by law; and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.

7. No title of nobility shall be granted by the United States; and no person holding any office of profit or trust under them, shall, without the consent of the Congress, accept of any present, emolument, office, or title of any kind whatever, from any king, prince, or foreign state.

SECTION X.

1. No State shall enter into any treaty, alliance, or confederation; grant letters of marque and reprisal; coin money, emit bills of credit; make anything but gold and silver coin a tender in payment of debts; pass any bill of attainder, *ex post facto* law, or law impairing the obligation of contracts; or grant any title of nobility.

2. No State shall, without the consent of the Congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws; and the net produce of all duties and imposts laid by any State on imports or exports,

shall be for the use of the treasury of the United States; and all such laws shall be subject to the revision and control of the Congress. No State shall, without the consent of the Congress, lay any duty of tonnage, keep troops or ships of war in time of peace, enter into any agreement or compact with another State, or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ARTICLE II.

SECTION I.

1. The executive power shall be vested in a President of the United States of America. He shall hold his office during the term of four years; and, together with the Vice-President chosen for the same term, be elected as follows.

2. Each State shall appoint, in such manner as the legislature thereof may direct, a number of electors equal to the whole number of senators and representatives to which the State may be entitled in the Congress; but no senator or representative, or person holding an office of trust or profit under the United States, shall be appointed an elector.

3. The electors shall meet in their respective States, and vote by ballot for two persons, of whom one at least shall not be an inhabitant of the same State with themselves. And they shall make a list of all the persons voted for and of the number of votes for each; which list they shall sign and certify and transmit sealed to the seat of government of the United States, directed to the President of the Senate. The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted. The person having the greatest number of votes shall be the President, if such number be a majority of the whole number of electors appointed; and if there be more than one who have such a majority, and have an equal number of votes, then the House of Representatives shall immediately choose, by ballot, one of them for President, and if no person have a majority, then, from the five highest on the list, the said House shall, in like manner, choose the President. But in choosing the President the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of all the States, and a majority of all the States shall be necessary to a choice. In every case, after the choice of the President, the person having the greatest number of votes of the electors shall be the Vice-President. But if there should remain two or more who have equal votes, the Senate shall choose from them, by ballot, the Vice-President.

4. The Congress may determine the time of choosing the electors, and the day on which they shall give their votes, which day shall be the same throughout the United States.

5. No person, except a natural born citizen, or a citizen of the United States at the time of the adoption of this Constitution, shall be eligible to the office of President; neither shall any person be eligible to that office who shall not have attained to the age of thirty-five years, and been fourteen years a resident within the United States.

6. In case of the removal of the President from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the Vice-President; and the Congress may, by law, provide for the case of removal, death, resignation or inability, both of the President and Vice-President, declaring what officer shall then act as President; and such officer shall act accordingly, until the disability be removed, or a President shall be elected.

7. The President shall, at stated times, receive for his services a compensation, which shall neither be increased nor diminished during the period for which he shall have been elected; and he shall not receive within that period any other emolument from the United States, or any of them.

8. Before he enter on the execution of his office, he shall take the following oath or affirmation:—

"I do solemnly swear (or affirm) that I will faithfully execute the office of President of the United States; and will, to the best of my ability, preserve, protect and defend the Constitution of the United States."

SECTION II.

1. The President shall be Commander-in-chief of the army and navy of the United States, and of the militia of the several States, when called into the actual service of the United States. He may require the opinion, in writing, of the principal officer in each of the executive departments, upon any subject relating to the duties of their respective offices; and he shall have power to grant reprieves and pardons for offences against the United States, except in cases of impeachment.

2. He shall have power, by and with the advice and consent of the Senate, to make treaties, provided two-thirds of the Senators present concur; and he shall nominate, and, by and with the advice and consent of the Senate, shall appoint ambassadors, other public ministers and consuls, judges of the Supreme Court, and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law. But the Congress may, by law, vest the appointment of such inferior officers as they think proper, in the President alone, in the courts of law, or in the heads of departments.

3. The President shall have power to fill all vacancies that may happen during the recess of the Senate, by granting commissions which shall expire at the end of their next session.

SECTION III.

1. He shall, from time to time, give to the Congress information of the state of the Union, and recommend to their consideration such measures as he shall judge necessary and expedient. He may, on extraordinary occasions, convene both Houses, or either of them; and in case of disagreement between them, with respect to the time of adjournment, he may adjourn them to such time as he shall think proper. He shall receive ambassadors and other public ministers. He shall take care that the laws be faithfully executed; and shall commission all officers of the United States.

SECTION IV.

1. The President, Vice-President and all civil officers of the United States shall be removed from office on impeachment for, and conviction of treason, bribery, or other high crimes and misdemeanors.

ARTICLE III

SECTION I.

1. The judicial power of the United States shall be vested in one Supreme Court and in such inferior courts as Congress may from time to time ordain and establish. The judges both of the Supreme and inferior courts shall hold their offices during good behavior; and shall, at stated times, receive for their services a compensation which shall not be diminished during their continuance of office.

SECTION II.

1. The judicial power shall extend to all cases in law and equity arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority; to all cases affecting ambassadors, other public ministers and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more States, between a State and citizens of another State, between citizens of different States, between citizens of the same State claiming lands under grants of different States, and between a State, or the citizens thereof, and foreign states, citizens, or subjects.

2. In all cases affecting ambassadors, other public ministers and consuls, and those in which a State shall be a party, the Supreme Court shall have original jurisdiction. In all the other cases mentioned, the Supreme Court shall have appellate jurisdiction, both as to law and fact, with such exceptions and under such regulations as the Congress shall make.

3. The trial of all crimes, except in cases of impeachment, shall be by jury, and such trial shall be held in the State where the said crime shall have been committed; but when not committed within any State, the trial shall be at such place or places as the Congress may by law have directed.

SECTION III.

1. Treason against the United States shall consist only in levying war against them or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

2. The Congress shall have power to declare the punishment of treason; but no attainder of treason shall work corruption of blood, or forfeiture, except during the life of the person attained.

ARTICLE IV.

SECTION I.

1. Full faith and credit shall be given in each State to the public acts, records, and judicial proceedings of every other State; and the Congress may, by general laws, prescribe the manner in which such acts, records, and proceedings shall be proved, and the effect thereof.

SECTION II.

1. The citizens of each State shall be entitled to all privileges and immunities of citizens in the several States.

2. A person charged in any State with treason, felony, or other crime, who shall flee from justice, and be found in another State shall, on demand of the executive authority of the State from which he fled, be delivered up to be removed to the State having jurisdiction of the crime.

3. No person held to service or labor in one State under the laws thereof, escaping into another, shall, in consequence of any laws or regulation therein, be discharged from such service or labor; but shall be delivered up on claim of the party to whom such service or labor may be due.

SECTION III.

1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the jurisdiction of any other State, nor any State be formed by the junction of two or more States or parts of States, without the consent of the Legislatures of the States concerned, as well as of the Congress.

2. The Congress shall have power to dispose of, and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this Constitution shall be so construed as to prejudice any claim of the United States, or of any particular State.

SECTION IV.

1. The United States shall guarantee to every State in this Union a republican form of government, and shall protect each of them against invasion; and, on application of the Legislature, or of the executive (when the Legislature cannot be convened), against domestic violence.

ARTICLE V.

1. The Congress, whenever two-thirds of both Houses shall deem it necessary, shall propose amendments to this Constitution; or, on the application of the Legislature of two-thirds of the several States, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes as part of this Constitution, when ratified by the Legislature of three-fourths of the several States, or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the Congress; provided, that no amendment which may be made prior to the year one thousand eight hundred and eight, shall in any manner affect the first and fourth clauses in the ninth section of the fifth article; and that no State, without its consent, shall be deprived of its equal suffrage in the Senate.

ARTICLE VI.

1. All debts contracted and engagements entered into before the adoption of this Constitution, shall be as valid against the United States under this Constitution, as under the Confederation.

2. This Constitution, and the laws of the United States which shall be made in pursuance thereof, and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every State shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.

3. The Senators and Representatives before mentioned and the members of the several State Legislatures, and all executive and judicial officers, both of the United States and the several States, shall be bound by oath or affirmation to support this Constitution; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ARTICLE VII.

1. The ratification of the convention of nine States shall be sufficient for the establishment of this Constitution between the States so ratifying the same.

Done in convention by the unanimous consent of the States present, the seventeenth day of December, in the year of our Lord one thousand seven hundred and eighty, and of the Independence of the United States of America the twelfth. In witness whereof we have hereunto subscribed our names.

GEORGE WASHINGTON,
President and Deputy from Virginia.

AMENDMENTS.

ARTICLE I.

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

ARTICLE II.

A well regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed.

ARTICLE III.

No soldier shall, in time of peace, be quartered in any house without the consent of the owner, nor in time of war, but in a manner to be prescribed by law.

ARTICLE IV.

The right of the people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures, shall not be violated; and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V.

No person shall be held to answer for a capital or otherwise infamous crime, unless on a presentment or indictment of a grand jury, except in cases arising in the land or naval forces, or in the militia, when in actual service in time of war or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb, nor shall be compelled in any criminal case, to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

ARTICLE VI.

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law; and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.

ARTICLE VII.

In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved; and no fact tried by a jury shall be otherwise re-examined in any court of the United States, than according to the rules of the common law.

ARTICLE VIII.

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishment inflicted.

ARTICLE IX.

The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.

ARTICLE X.

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

ARTICLE XI.

The judicial power of the United States shall not be construed to extend to any suit in law or equity commenced or prosecuted against one of the United States by citizens or subjects of any foreign State.

ARTICLE XII.

1. The electors shall meet in their respective States, and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same State with themselves. They shall name in their ballots the person voted for as President, and in distinct ballots, the person voted for as Vice-President; and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each; which lists they shall sign and certify, and transmit sealed to the seat of government of the United States, directed to the President of the Senate. The President of the Senate shall, in the presence of the Senate and House of Representatives, open the certificates, and the votes shall then be counted. The person having the greatest number of votes for President shall be the President, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three, on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But, in choosing the President, the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President.

2. The person having the greatest number of votes as Vice-President shall be the Vice-President, if such number be a majority of the whole number of electors appointed, and if no person have a majority, then from the two highest numbers on the list the Senate shall choose the Vice-President. A quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice.

3. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

ARTICLE XIII.

1 Neither slavery nor involuntary servitude, except as a punishment for crime, whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

2. Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XIV.

SECTION I.

All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor shall any State deprive any person of life, liberty, or property, without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.

SECTION II.

Representatives shall be appointed among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the executive and judidial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

SECTION III.

No person shall be a Senator or Representative in Congress, or elector of President and Vice-President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath as a member of Congress, or as an officer of the United States, or as a member of any State Legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof; but Congress may, by a vote of two-thirds of each House, remove such disability.

SECTION IV.

The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

SECTION V.

The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

ARTICLE XV.

SECTION I.

The right of citizens of the United States to vote shall not be denied or abridged by the United States, or any State, on account of race, color or previous condition of servitude.

SECTION II.

The Congress shall have power to enforce this article by appropriate legislation.

THE DEPARTMENTS AT WASHINGTON.

THE EXECUTIVE DEPARTMENT.

AS PROVIDED by the Constitution, the Government of the United States performs its allotted work through three distinct channels, the Executive, the Legislative and the Judiciary.

The President, whose oath of office, duties and powers are described in the Constitution, holds office for four years. He must be thirty-five years of age, a native of the United States and a resident of the United States for fourteen years. His inauguration takes place on the fourth of March next succeeding his election; his salary is $50,000 a year, payable monthly, and he has the use of the furniture and the other effects in the "White House," a Government building in Washington, where he resides. The President's official household, selected by himself, consists of:

	SALARY.
1 secretary,	$3,250
1 ass't secretary,	2,250
2 clerks, each,	2,000
1 clerk,	1,800
1 clerk,	$1,400
1 clerk,	1,200
1 stenographer,	1,800
1 steward,	1,800
1 usher,	$1,400
9 doorkeepers, e.	1,200
1 watchman,	900
1 fireman,	864

The patronage of the President is enormous The appointments to every branch of public service, made by him, give him a power that would be appalling but that it is balanced by the safeguard of the consent of the Senate.

The office of President is one which has been called by European writers the highest to which humanity can aspire. The chief magistracy of the American Republic is a prize for which every eminent American statesman has struggled, and it is singular in looking back over the history of the country to note how many men peculiarly fitted by their great talents and great prominence for the Presidency have been beaten by unknown men. Two of the greatest Senators in the history of the Union were Daniel Webster and Henry Clay, neither of whom succeeded in winning the crowning honor of a political career. On the other hand, the number of comparatively unknown men who have been chosen by their parties and elected by the people, is very large.

The original intention of the Fathers of the Republic is one that the politicians of the country have departed from widely. The electoral system did not contemplate nominations and party organization; it intended that the electors, men chosen by the people of each State as safe men for this important office, should cast about for the most fit man in the Republic for the honor of the Presidency. For this man they were to vote. But under the manner in which the system is worked the electors furnish a clumsy method, often a faulty one, for expressing the direct popular will. No elector would dare to use his own judgment; he is simply chosen on a pledge to vote for a certain candidate chosen for him. In this way the people choose directly the President, and yet, owing to the fact that the electors are never in number in exact proportion to the population, it frequently happens that, while one candidate has a majority of the popular vote, the other has a majority of the electors and becomes President.



THE CAPITOL AT WASHINGTON.

The Presidential residence at Washington is a very handsome pile. It is called the White House from its color. It has been the centre of the fashion and grace of the republican court. There are regular reception days set, when any one who wishes may call upon the President. Upon private reception days admittance is only secured by card. Upon these occasions, the gay court costumes of the foreign legations, the military uniforms and the splendid dresses of the ladies form a scene not soon to be forgotten.

The grounds about the White House, taking in as they do the conservatories and nurseries of the Agricultural Department, are very pretty and well kept. The Presidential residence is furnished by the Government for the President.

The City Government of Washington.

When the District of Columbia was set off from Maryland and Virginia, and put in possession of the Government, it was decided that the whole territory should be in the hands of the Federal Union alone, so that it would be altogether independent of State influence. As the city of Washington grew up around the Capitol provision had to be made for its municipal government, which was obliged to be peculiar under the circumstances. The President appoints three Commissioners of the District of Columbia, in whose hands lie all of the functions usually performed by mayors and boards of aldermen. The residents of Washington have no votes as there are no elections. All of the city officers are appointed, and the whole machinery of local government is directly in the hands of the President and Congress.

DEPARTMENT OF STATE.

THE duties of the Secretary of this Department are prescribed by law and relate chiefly to correspondence with public Ministers or Consuls from the United States, to negotiations with public Ministers of foreign States and to memorials or other applications from foreigners. Through his hands all the business of the Government with other Powers passes. Any bill passed by Congress and signed by the President, or that becomes a law in any other lawful manner, is received by the Secretary and made public by him.

It is his duty to report annually to Congress all the information that should naturally come through his office. Any new amendment to the Constitution, any act of Congress that becomes a law, any foreign treaty, postal convention or Congressional joint resolution is sent to the Public Printer by the Secretary of State for legal publication; he must also publish in some newspaper the commercial information he may deem of public importance. Passports when rendered are free of charge. Copies of records in this Department when applied for are furnished by the Clerk at a cost to applicant of ten cents for every hundred words.



DEPARTMENTS OF STATE, ARMY AND NAVY.

The salaries paid in the Department of State are:

Secretary, - -	$8,000	4 clerks, each -	$1,600
3 ass't secretaries, each	3,500	2 clerks, each - -	1,400
1 chief clerk, -	2,500	10 clerks, each -	1,200
1 translator, - -	2,100	2 clerks, each - -	1,000
6 chiefs of Bureaus, each	2,100	10 clerks, each -	900
11 clerks, each - -	1,800	1 engineer, - -	1,200
		1 assistant engineer, -	$1,000

With watchmen, firemen, laborers, etc., the total amount is about $100,000 a year.

The Examiner of Claims, an officer appointed by the Attorney-General, has charge of the legal business of the Department of State. There are a number of Bureaus in the Department, the most important of which is the Consular. Quite a number of interpreters are continually needed in the offices.

The Diplomatic Service.

The diplomatic service of the United States, all of which is in charge of the Secretary of State, consists of Envoys Extraordinary and Ministers Plenipotentiary, Ministers Resident, Charges d'Affaires, Consuls-General, Consuls and Commercial Agents.

The highest class of Ministers are those sent to France, Germany, Great Britain and Russia; they are paid $17,500 per year. The second class ($12,000 a year) are sent to Austria, Hungary, Brazil, China, Italy, Japan, Mexico and Spain. The third class ($10,000 a year) go to Chili, Peru and the Central Amercain States. Ministers Resident receive $7,500 (with the exception of the one in Bolivia, $5,000, and the one in Liberia, $4,000), and are in the Argentine Republic, Belgium, Colombia, Hawaian Islands, Hayti, the Netherlands, Sweden and Norway, Turkey and Venezuela. Charges d'Affaires have $5,000 a year, and are in Denmark, Portugal, Switzerland, Uruguay and Paraguay. There are five Consuls-General in British dominions, at Calcutta, Melbourne, London, Halifax and Montreal; two in Germany, at Berlin and Frankfort; two in Turkey, at Cairo and Constantinople; and one each in Paris, Vienna, Rome, St. Petersburg, Bucharest, Bangkok, Shanghai, Kanagawa, Havana and Mexico. Their salaries range from $2,000 to $6,000. There are the following ranks of consulates. Five at $6,000 a year; two at $5,000; one at $4,500; six at $4,000; eight at $3,500; twenty-one at $3,000; sixteen at $2,500; thirty-seven at $2,000; forty-seven at $1,500; and twenty at $1,000. All Consuls receiving a fixed salary pay into the Treasury all fees received by virtue of their office. But there are many Consuls and Agents whose only compensation comes from fees. Such officers are usually allowed to go into business.

Secretaries of State.

Thomas Jefferson, Va.	1789	Abel P. Upshur, Va.	1843
Edmond Randolph, Va.	1794	John C. Calhoun, S. C.	1844
Timothy Pickering, Penn.	1795	James Buchanan, Penn.	1845
John Marshall, Va.	1800	John M. Clayton, Del.	1849
James Madison, Va.	1801	Daniel Webster, Mass.	1850
Robert Smith, Md.	1809	Edward Everett, Mass.	1852
James Monroe, Va.	1811	William L. Marcy, N. Y.	1854
John Q. Adams, Mass.	1817	Lewis Cass, Mich.	1857
Henry Clay, Ky.	1825	Jeremiah S. Black, Penn.	1860
Martin Van Buren, N. Y.	1829	William H. Seward, N. Y.	1861
Edward Livingston, La.	1831	Elihu B. Washburn,	1869
Louis McLane, Del.	1833	Hamilton Fish,	1869
John Forsyth, Ga.	1834	William M. Evarts	1877
Daniel Webster, Mass.	1841	James G. Blaine	1881
Hugh S. Legair, S. C.	1843	F. T. Frelinghuysen	1881
		Thomas F. Bayard, Del.,	1885
		James G. Blaine, Maine.	1889

THE TREASURY DEPARTMENT.

ALL of the moneys of the United States, all matters relating to the collection and payment of the accounts of the Government, and, in a word, all of the duties appertaining to the finances of the nation, fall naturally to the Secretary of the Treasury. He is assisted by a numerous corps, the Treasury Department requiring naturally more clerical detail than any other in the Government. There are three Assistant Secretaries, having charge of appointments, public money, revenue marine, loans and currency, engraving and printing, the mints, and the signature of documents; they also attend to customs, special agents, internal revenue and navigation, and the general supervision of accounts.

There are two Comptrollers. The first countersigns warrants, attends to the pay of the diplomatic service, and examines requisitions and claims. The second has charge of the accounts of the Army, Soldiers' Homes, Pensions, Marine Corps and Navy Yards, Disbursing Agents, and of the Financial Agency of the Government at London.

The Commissioner of Customs examines, revises and passes all accounts concerning duties, tonnage, marine hospitals, fines, penalties and forfeitures under the navigation laws, and approves bonds of customs officers.



UNITED STATES TREASURY BUILDING.

The Six Auditors.

There are six Auditors in the Treasury Department, among whom the work is divided as follows:

First Auditor: Customs, Judiciary, Public Debt, Warehouse and Bonded Goods, Miscellaneous Accounts.

Second Auditor: Army Paymaster, Miscellaneous Claims, Indian Affairs, Bounties, Frauds, Book-keeping.

Third Auditor: Book-keeper, Quartermasters, Subsistence and Engineering, State War Claims, Miscellaneous Collections.

Fourth Auditor: Prize Money, Navy Agents, Paymasters.

Fifth Auditor: Diplomatic and Consular division, Internal Revenue.

Sixth Auditor: Post-office accounts.

Other Treasury Officers.

The Treasurer of the United States has custody of all the public money; he pays warrants, issues and redeems Treasury Note, redeems National bank notes, pays the interest on the public debt, and is custodian of the Indian trust funds.

The Comptroller of the Currency supervises and controls the National banks throughout the country, under the Secretary of the Treasury.

The Solicitor of the Treasury examines all revenue frauds and oversees the legal measures for their prevention and punishment. All of the legal business of the department goes through his hands, and the secret service operations are directed by him. When required he must give his opinion on any legal question. The Solicitor of the Treasury

is really an officer of the Department of Justice, as will be seen on another page.

The Commissioner of Internal Revenue makes assessments and apportions taxes. The bureau is divided into seven departments: 1. Appointments. 2. Laws. 3. Accounts. 4. Tobacco. 5. Distilled Spirits. 6. Stamps. 7. Assessments. Special agents are appointed by the Commissioner to watch the manufacture and handling of whisky.

The Superintendent of the Coast Survey has charge of all the surveys of the ocean and coast and the making of maps, charts, etc.

The Bureau of Statistics collects and publishes information in regard to trade and commerce, shipping, imports and exports, emigration, etc. Its reports are published quarterly and distributed gratuitously.

The Mint in Philadelphia is the one to which the Mints at New Orleans, Carson and Denver must send their reports. Each Mint has a superintendent, assayer, teller, refiner, coiner and assistants, and the one at Philadelphia has also an engraver. The Director of the Philadelphia Mint makes an annual report of the minting done in the country.

Quarantine.

The Secretary of the Treasury executes the laws which restrain, stop and govern vessels arriving at United States ports from places afflicted with infectious diseases. The officers of the customs revenue are required to see to the execution of the public health laws of the General Government and of the several States in this regard.

The Light-House Board.

The Light-House Board, which is appointed by the President, is attached to the Treasury Department. It consists of two officers of the Navy of high rank, two officers of the Corps of Engineers and two citizens of high scientific attainments. This Board has general charge of the light-house service of the United States.



CASH-ROOM IN THE TREASURY BUILDING.

The Life-Saving Service.

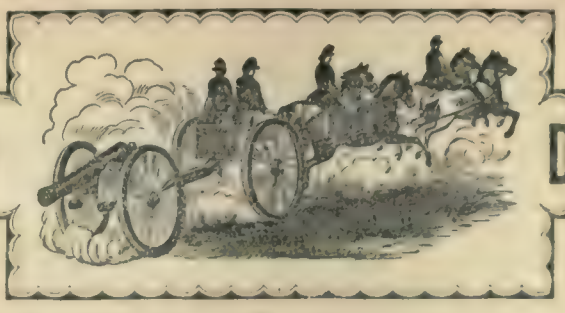
The life-saving service is divided into seven ocean districts and three lake districts. The various stations are supplied with such apparatus as may, in the judgment of the Secretary of the Treasury, be best adapted to the purpose of each station, such as life-boats, ropes, mortars for sending ropes on board wrecked vessels, contrivances for getting passengers safely on shore, etc. Each district is in charge of a superintendent, who possesses the powers and performs the duties of an inspector of the customs for each of the coasts on which stations are established. These districts number seven on the Atlantic coast, and three on the great lakes, and each superintendent receives from the Secretary of the Treasury the proper instructions relative to the duties required of him.

Each station is in charge of a keeper, who is instructed in his duties by the Secretary of the Treasury. At some stations experienced surfmen are engaged to assist in aiding wrecked vessels.

Secretaries of the Treasury.

Alexander Hamilton, N. Y.	1789
Oliver Wolcott, Conn.	1795
Samuel Dexter, Mass.	1800
Albert Gallatin, Penn.	1802
George W. Campbell, Tenn.	1814
Alexander J. Dallas, Penn.	1814
William H. Crawford, Ga.	1817
Richard Rush, Penn.	1825
Samuel D. Ingham, Penn.	1829
Louis McLane, Del.	1831
William J. Duane, Penn.	1833
Roger B. Taney, Md. Appointed during recess; not confirmed by Senate.	1833
Levi Woodbury, N. H.	1834
Thomas Ewing, Ohio.	1841
Walter Forward, Penn.	1841
John C. Spencer, N. Y.	1843
Geo. M. Bible, Ky.	1844
Robert J. Walker, Miss.	1845
William M. Meredith, Penn.	1849
Thomas Corwin, Ohio.	1850
James Guthrie, Ky.	1853
Howell Cobb, Ga.	1857
Philip F. Thomas, Md.	1860
John A. Dix, N. Y.	1861
Salmon P. Chase, Ohio.	1861
William Pitt Fessenden, Me.	1864
Hugh McCulloch, Ind.	1865
George S. Boutwell.	1870
William A. Richardson.	1873
Benjamin H. Bristow.	1874
Lot M. Morrill.	1876
John Sherman.	1877
William Windom.	1881
Charles J. Folger.	1881
Hugh McCulloch, Ind.	1884
Daniel Manning, N. Y.	1885
Chas. S. Fairchild, N. Y.	1887
W. Windom, Minn.	1889
Charles Foster, Ohio.	1891

THE WAR DEPARTMENT



OF ALL matters relating to military affairs the Secretary of War has entire charge. He must communicate to Congress estimates of the appropriations needed for his Department, not only for its internal working, but for the construction of public works and other public service performed under his direction. He must report annually a statement of the appropriations of the preceding year (always counting from the 1st of July), showing how much was appropriated for each Bureau of the Department, and the balance on hand, together with estimates of the amounts necessary for the ensuing year. He will submit to Congress reports of surveys of rivers and harbors ordered by Congress.

He furnishes an abstract of the returns of the Adjutants-General of the militia of the States.

These annual reports are made at the beginning of each regular session and cover all the transactions of the Department during the year. The Department is divided into ten branches, governed by the following officers: The Adjutant-General, Quartermaster-General, Paymaster-General, Commissary-General, Surgeon-General, Chief of Engineers, Chief of Ordnance, Chief Signal Officer, the Judge Advocate-General and the Inspector-General.

The annual salaries paid in this Department are:

Secretary,		$8,000	3 engineers,		3,800
1 chief clerk,		2,750	65 messengers,	720	46,800
1 disbursing clerk,		2,000	50 laborers,	660	33,000
7 Bureau chiefs, e.	$2,000	14,000	8 char-women	180	1,440
52 clerks, each	1,800	93,000	125 physicians,	1,200	150,000
52 clerks, each	1,600	83,200	185 hospital stewards	360	66,600
95 clerks, each	1,400	133,000	50 paymaster's clerks	1,200	60,000
390 clerks, each	1,200	468,000	90 Nat. Cem. keepers	800	72,000
191 clerks, each	1,000	191,000	450 weather observers	720	324,000
32 clerks, each	900	28,800	1,000 employes at armories and other business of Dep't.,	800	800,000
1 draughtsman,		1,800			
1 anatomist,		1,600			
8 printers,		8,800			$2,593,590

With rations, quarters and fuel in many cases, the expense of the Department borders on $3,000,000 annually.

The Bureaus of the War Department.

THE ADJUTANT-GENERAL'S OFFICE. From this office are issued all orders with regard to the movements of the army. All records of individuals in the army from the privates to the officer of the highest rank may be found in this office. All commissions, promotions, charges and discharges, come through this Bureau. In one word, the Adjutant-General is the instrument by which the Executive communicates with the army.

THE QUARTERMASTER-GENERAL'S OFFICE. This Bureau has charge of the purchasing and distributing of all supplies (except subsistence) needed by the army, to furnish transportation for soldiers, military stores and supplies, and to pay all expenses of the military service not provided for in other Bureaus.

THE COMMISSARY-GENERAL'S OFFICE. The business of this office consists in the purchase and distribution of subsistence and supplies for the army.

THE PAYMASTER-GENERAL'S OFFICE. Payments to the army are made through this office. Arrears of pay shall never exceed two months.

THE SURGEON-GENERAL'S OFFICE. This Bureau has charge of the surgical and medical department of the army, the purchase and distribution of hospital and medical supplies. It has authority in sanitary matters, such as supervising the cooking done in the army, and the preparation of rations for the enlisted men.

THE OFFICE OF THE CHIEF OF ENGINEERS. This Bureau has charge of the various fortifications, and provides for the surveys of rivers and harbors. All matters connected with skilled labor, such as building, bridging, excavation, mining, etc., in the military service, belong to this Bureau.

OFFICE OF THE CHIEF OF ORDNANCE. This office has charge of all skilled labor necessary in the preparation and care of the ordnance and ordnance supplies. It purchases, inspects and controls the construction, movement and storing of all the heavy armament in the service.

THE OFFICE OF MILITARY JUSTICE. This office is under the charge of the *Judge Advocate-General*. The proceedings of all Courts-Martial, Courts of Inquiry and Military Commissions are received, revised and recorded in this office. All matters connected with the administration of justice in the army are the peculiar province of this Bureau.

THE SIGNAL OFFICE. The Signal Service, which has proved itself of incalculable benefit to the country, is an adjunct of the War Department and is managed by the officers of the Army detailed by the Secretary of War.

THE INSPECTOR-GENERAL'S DEPARTMENT is specially established to promote economy, efficiency and compliance with the laws and orders at all military commands and stations, at the Military Academy, and at all institutions or departments thereof under charge of officers of the Army.

The Military Academy at West Point.

The corps of cadets consist of one from each Congressional District of the United States, one from each State, one from the District of Columbia, and ten from the United States at large, who are appointed by the President. The cadets must be between seventeen and twenty-two years old when admitted; they must be well versed in reading, writing, arithmetic, grammar, geography and history, particularly of the United States. The course at the Academy lasts four years, and on graduation the cadets are commissioned as second lieutenants in the army.

THE AMERICAN ARMY.

EVERY citizen of this Republic may well be proud of the history of the American Army. Organized by George Washington and commanded ever since by eminent chieftains, it has carried the Star-spangled Banner over hundreds of stricken fields of battle, and never without honor. It has fought through four great wars and innumerable Indian revolts. Again and again has its valor been proved, until to-day, one of the smallest, the American Army is considered to be one of the most effective in the world. In time of peace its work does not cease. All along the Western frontier the scattered forces have all that they can do holding the savage Indian tribes to good behavior, Always fighting at tremendous odds, the service performed by the soldiers in the far West can only be described by the word "remarkable." The regular army is the skeleton upon which in time of war the forces of the Republic form. It consists of about 25,000. On a war footing our army could, no doubt, be pushed up to over three millions of men under arms. Towards the end of the civil war the total of the Federal and Confederate service was much larger than that figure. On the resignation of General U. S. Grant, who became President in 1868, General William Tecumseh Sherman, a soldier who fought his way to the front in the time that tried men's souls, was assigned to the highest rank. General Sherman retired from active service, however, in 1883, and General Phil. Sheridan was placed in command. Major-General John M. Schofield is the present commander of the United States Army.

Pay-Roll of the United States Army.

GENERALS.

3 major-generals, each	7,500—8 aides-de-camp, $200 addition to line pay.
6 brigadier-generals, each	5,500—13 aides-de-camp, $150 addition to line pay.

CAVALRY.

10 colonels, each	$3,500	10 reg't quartermasters, ea.	$1,800
10 lieutenant-colonels, each	3,000	120 1st lieutenants, each	1,600
30 majors, each	2,500	120 2d lieutenants, each	1,500
120 captains, each	2,000	2 chaplains, each	1,500
10 adjutants, each	1,800		

ARTILLERY.

5 colonels, each	$3,500	5 adjutants, each	$1,800
5 lieutenant-colonels, each	3,000	5 reg't quarter-masters, ea.	1,800
15 majors, each	2,500	120 1st lieutenants, each	1,600
60 captains, each	2,000	65 2d lieutenants, each,	1,500

INFANTRY.

25 colonels, each	$3,500	25 reg't quartermasters, e.	$1,800
25 lieutenant-colonels, each	3,000	250 1st lieutenants, each	1,500
25 majors, each	2,500	250 2d lieutenants, each	1,400
250 captains, each	1,800	2 chaplains,	1,500
25 adjutants, each	1,800		

DEPARTMENTAL SERVICE.

8 brigadier-generals, each	$5,500	150 majors, each	$2,500
12 colonels, each	3,300	127 captains, each	2,000
33 lieutenant-colonels, each	3,000	76 1st lieutenants, each	1,600

ENGINEER CORPS.

1 brigadier-general,	$5,500	24 majors, each	$2,500
6 colonels, each	3,500	30 captains, each	1,800
12 lieutenant-colonels, each	3,000		

SIGNAL OFFICE.

1 brigadier-general,	$5,500	32 lieutenants, each	$1,500

RETIRED LIST.

4 major-generals,		131 captains,	
32 brigadier-generals		72 1st lieutenants,	
59 colonels,		15 2d lieutenants,	
34 lieutenant-colonels,		8 chaplains,	
50 majors,			

Enlisted Men.

NON-COMMISSIONED OFFICERS.

The following enlisted men are paid these sums monthly during their first terms of enlistment, with some modifications prescribed by law: Sergeant-majors of cavalry, artillery and infantry, $23 each; quartermaster-sergeants of cavalry, artillery and infantry, $23 each; chief trumpeters of cavalry, $22; principal musicians of artillery and infantry, $22; chief musicians of regiments, $60, and the allowances of a quartermaster-sergeant; saddler sergeants of cavalry, $22; first sergeants of cavalry, artillery and infantry, $22; sergeants of cavalry, artillery and infantry, $17; corporals of cavalry and light artillery, $15; corporals of artillery and infantry, $15; saddlers of cavalry, $15; blacksmiths and farriers of cavalry, $15; trumpeters of cavalry, $13; musicians of artillery and infantry, $13; privates of cavalry, artillery and infantry, $13; sergeant-majors of engineers, $36; quartermaster-sergeants of engineers, $36; sergeants of engineers and ordnance, $34; corporals of engineers and ordnance, $20; musicians of engineers, $13; privates (first class) of engineers and ordnance, $17; privates (second class) of engineers and ordnance, $13. To these rates of pay $1 a month is added for the third year of enlistment, $1 for the fourth year, and one more for the fifth year, making $3 a month increase for the last year of enlistment; but this increase is "retained pay," and is not given to the soldier until his term is ended, and it is forfeited if he misbehaves himself before he receives his discharge. Occasional extra services by soldiers and non-commissioned officers also entitle them to additional pay.

The Army During the Civil War.

The following table shows the dates of the President's proclamations for men, the number of men called for and the number secured.

DATE OF PRESIDENT'S PROCLAMATION.	NO. CALLED FOR.	PERIOD OF SERVICE.	NUMBER OBTAIN'D
April 15, 1861	75,000	3 months.	93,326
May 3, 1861	83,748	3 years.	714,231
July 22 and 25, 1861	500,000		
May and June, 1862		3 months.	15,007
July 2, 1862	300,000	3 years.	431,958
August 4, 1862	300,000	9 months.	87,588
June 15, 1863	100,000	6 months.	16,361
October 17, 1863	300,000	2 years.	374,807
February 1, 1864	200,000		
March 14, 1864	200,000	3 years.	284,021
April 23, 1864	85,000	100 days.	83,652
July 18, 1864	500,000	1, 2, 3 years	384,882
December 19, 1864	300,000	1, 2, 3 years	204,568
Total	2,942,748		2,690,401

The Strength of the Federal Army.

DATE.	ON DUTY.	ABSENT.	TOTAL.
January 1st, 1861	14,663	1,704	16,367
July 1st, 1861	183,588	3,163	186 751
January 1st, 1862	527,204	48,714	575,917
January 1st, 1863	698,802	219,389	918,.81
January 1st, 1864	611,250	249,487	860,737
January 1st, 1865	620,924	338,536	959,460
May 1st, 1865	797,807	202,709	1,000,516

Volunteers in the War.

The following table shows the number of men furnished to the Federal army by each State in the Union.

New York,	445,959	Rhode Island,	23,248
Pennsylvania,	338,155	Kansas,	20,095
Ohio,	310,654	District of Columbia,	16,534
Illinois,	258,162	California,	15,725
Indiana,	194,363	Delaware,	12,265
Massachusetts,	146,467	Arkansas,	8,289
Missouri,	108,162	New Mexico	6,561
Wisconsin,	91,021	Louisiana,	5,224
Michigan,	88,111	Colorado,	4,903
Iowa,	75,793	Indian Nation,	3,530
New Jersey,	75,315	Nebraska,	3,157
Kentucky,	75,275	North Carolina,	3,150
Maine,	69,738	Alabama,	2,576
Connecticut,	55,755	Texas,	1,965
Maryland,	46,053	Oregon,	1,810
New Hampshire,	33,913	Nevada,	1,080
Vermont,	33,272	Washington Territory,	964
West Virginia	32,003	Mississippi,	545
Tennessee,	31,092	Dakota Territory,	206
Minnesota,	24,002		

The Bivouac of the Dead.

There were killed in action, or died of wounds in the Civil war, commissioned officers, 5,221; enlisted men, 90,868. Died from disease or accident, commissioned officers, 2,321; enlisted men, 182,329; making a total loss of 289,739. Deaths which occurred after the men left the army are not included in these figures.

The Strength of the World's Armies.

COUNTRIES.	Population.	Regular Army.	War Footing.	Annual Cost of Army.	Cost per Head.	Per cent of total expenditure.
Argentine Republic	2,400,000	8,227	304,000	$ 3,374,518	$1.46	19.53
Austria-Hungary	37,739,407	289,190	1,125,533	53,360,915	1.41	87.38
Belgium	5,476,668	46,353	105,877	8,776,429	1.60	15.73
Bolivia	2,060,000	3,021	.....	1,126,916	.54	25.01
Brazil	11,105,291	15,304	32,000	8,690,000	.78	14.54
Canada	4,352,060	2,000	700,152	777,699	.17	3.11
Chili	2,400,396	3,573	50,000	.....	.....	.....
China	434,020,002	300,000	1,000,000	.....	.....	.....
Colombia	2,774,000	3,000	30,740	982,432	.35	11.37
Denmark	1,969,454	35,727	49,054	2,539,027	1.19	20.06
Egypt	17,419,980	15,000	43,000	2,198,216	.12	20.88
France	39,205,788	502,764	1,753,164	114,279,761	3.00	5.31
Germany	45,194,172	445,402	1,402,104	98,330,429	2.17	6.57
Great Britain	35,246,562	131,036	577,906	74,901,500	2.12	18.02
Greece	1,679,775	12,118	35,000	2,264,716	1.34	12.06
India, British	252,541,210	189,597	380,000	84,451,195	.33	20.74
Italy	28,203,620	214,667	736,502	42,947,263	1.52	15.15
Japan	34,338,404	36,777	51,721	8,151,000	.23	13.76
Luxemburg	203,673	377	.....	90,680	.43	5.64
Mexico	9,389,461	24,830	.....	9,786,664	1.04	42.31
Netherlands	3,681,887	65,113	163,198	8,307,000	2.10	16.56
Norway	1,806,900	18,750	241,000	1,626,750	.90	13.62
Persia	7,000,000	57,000	.....	3,392,000	.48	41.71
Peru	3,050,000	4,670	40,000	.....	.....	.....
Portugal	4,348,551	34,874	78,024	4,373,833	1.00	12.68
Roumania	5,376,000	19,812	200,000	5,222,227	.97	21.61
Russia	72,520,000	974,771	2,733,305	137,812,202	1.90	20.37
Servia	1,889,050	50,000	265,000	1,765,021	1.11	34.42
Spain	16,333,293	90,000	450,000	24,802,030	1.51	15.82
Sweden	4,581,803	41,280	202,783	4,699,040	1.02	23.13
Switzerland	2,831,787	117,500	210,495	2,352,100	.83	29.32
Turkey	8,886,532	350,000	610,200	19,442,083	2.21	34.19
United States	62,622,250	27,380	3,165,000	40,466,400	.80	15.52
Uruguay	447,000	2,357	22,357	1,870,686	4.18	40.53
Venezuela	1,784,197	2,240	185,000	.....	.....	.....

Secretaries of War.

Henry Knox, Mass.	1789	William Wilkins, Penn.	1844
Timothy Pickering, Penn.	1795	William L. Marcy, N. Y.	1845
James McHenry, Md.	1796	George W. Crawfod, Ga.	1849
Samuel Dexter, Mass.	1800	Charles L. Conrad, La.	1850
Roger Griswold, Conn.	1801	Jefferson Davis, Miss.	1853
Henry Dearborn, Mass.	1801	John B. Floyd, Va.	1857
William Eustis, Mass.	1809	Joseph Holt, Ky.	1861
John Armstrong, N. Y.	1813	Simon Cameron, Penn.	1861
James Monroe, Va.	1814	Edwin M. Stanton, Penn.	1861
William H. Crawford, Ga.	1815	Ulysses S. Grant.	1867
John C. Calhoun, S. C.	1817	Lorenzo Thomas.	1868
James Barbour, Va.	1825	John M. Schofield.	1868
Peter B. Porter, N. Y.	1828	John A. Rawlins.	1869
John H. Eaton, Tenn.	1829	William W. Belknap.	1869
Lewis Cass, Ohio.	1831	Alphonso Taft.	1876
Joel R. Poinsett, S. C.	1837	James D. Cameron.	1876
John Bell, Tenn.	1841	George W. McCrary.	1877
John C. Spencer, N. Y.	1841	Alexander Ramsey.	1879
James M. Porter, Penn. Negatived by Senate.	1843	Robert T. Lincoln.	1881
		William C. Endicott, Mass.	1885
		Redfield Proctor, Vermont.	1889
		Stephen B. Elkins, W. Va.	1892

Secretaries of the Navy.

Benjamin Stoddard, Md.	1799	Levi Woodbury, N. H.	1831	George Bancroft, Mass.	1845
Robert Smith, Md.	1802	Mahlon Dickerson, N. J.	1834	John Y. Mason, Va.	1846
Jacob Crowninshield, Mass.	1805	James K. Paulding, N. Y.	1838	William B. Preston, Va.	1849
Paul Hamilton, S. C.	1809	George E. Badger, N. C.	1841	William A. Graham, N. C.	1850
William Jones, Penn.	1813	Abel P. Upshur, Va.	1841	John P. Kennedy, Md.	1852
B. W. Crowninshield, Mass.	1814	David Henshaw, Mass. Negatived by Senate.	1843	James C. Dobbin, N. C.	1853
Smith Thompson, N. Y.	1818			Isaac Toncey, Conn.	1857
Samuel L. Southard, N. J.	1823	Thomas W. Gilmer, Va.	1844	Gideon Welles, Conn.	1861
John Branch, N. C.	1829	John Y. Mason, Va.	1844	Adolph E. Boui.	1869
				George M. Robeson.	1869
				Richard W. Thompson.	1877
				Nathan Goff, Jr.	1881
				William H. Hunt.	1881
				Wm. E. Chandler, N. H.	1884
				Wm C. Whitney, N. Y.	1885
				B. F. Tracy, N. Y.	1889



WHAT the duties of the Secretary of the Navy are, is indicated in the name of the Department. He has control of the ships of war of the Republic, and of all matters growing out of that control. There are eight Bureaus in the Department, among which the duties and responsibilities of the naval work are divided. These are the Bureau of Yards and Docks, presided over by an officer selected from the navy, not below the grade of Commander; the Bureau of Equipment and Recruiting, presided over by a similar officer; the Bureau of Navigation, similarly officered; a Bureau of Ordnance, a Bureau of Construction and Repair follow in order, the chief of each being a naval officer of rank; the Bureau of Steam Engineering is presided over by one of the chief engineers of the navy; the Bureau of Provisions and Clothing, at the head of which is one of the paymasters of the navy, of not less than ten years' standing; and lastly the Bureau of Medicine and Surgery, presided over by one of the surgeons of the navy. Each of these chiefs is appointed by the President; they hold office four years and receive only the salary of their rank in the navy. The Secretary in common with the other Cabinet officers gets $8,000 per year. The Judge Advocate-General receives $3,500.

THE LINE AT SEA.

6 rear admirals,		$6,000	100 masters,	$1,800 &	2,000
10 commodores,		5,000	100 ensigns,	1,200	1,400
45 captains,		4,500	40 midshipmen,		1,000
85 commanders,		3,500	334 cadet midship'n,	500	950
74 lieut.-com'ders,	2,800 &	3,000	42 mates,		900
280 lieutenants,	2,400	2,600			

STAFF.

15 medical directors,	$2,800 &	4,400	100 passed ass't eng's	$2,000 &	2,200
13 pay directors,	2,800	4,200	100 ass't engineers,	1,700	1,900
70 chief engineers,	2,800	4,200	24 chaplains,	2,500	2,800
50 surgeons,	2,800	4,200	11 naval constructors,	3,200	4,200
50 paymasters,	2,800	4,200	5 ass't constructors,	2,000	2,600
100 passed and assistant surgeons,	1,900	2,200	12 professors of mathematics,	2,400	3,500
30 passed assistant paymasters,	2,000	2,200	9 civil engineers,	2,400	3,500
20 ass't paymasters,	1,700	1,900	Cadet engineers,	500	1,000

THE MARINE CORPS.

1 colonel-commandant,		$3,500	18 captains,	$1,800
1 colonel,		3,500	30 1st lieutenants,	1,500
2 lieutenant-colonels,		3,000	20 2d lieutenants,	1,400
1 major,		2,500		

MARINE CORPS STAFF.

3 majors,	$2,500		2 captains,	$2,000

RETIRED LIST.

41 rear-admirals,		12 commanders,	
10 commodores,		25 lieutenant-commanders,	
11 captains,		44 lieutenants,	

Attached to the Bureau of Navigation is a hydrographic office which provides charts, sailing directions and manuals for the use of the naval and merchant marine. The Nautical Almanac is prepared at the Naval Observatory.

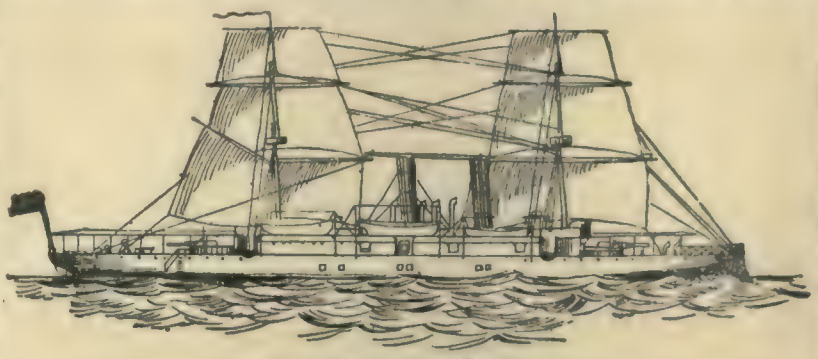
Rank in the Army and Navy.

The relative rank in the two arms of the service runs as follows:

The rear-admirals with major-generals, commodores with brigadier-generals, captains with colonels, commanders with lieutenant-colonels, lieutenant-commanders with majors, lieutenants with captains, masters with 1st lieutenants, and ensigns with 2d lieutenants.

THE AMERICAN NAVY.

THE popular thing of late years, among papers and people inclined to be flippant, has been to make inquiries regarding the whereabouts of the United States navy. No one in authority ever took the trouble to answer the questions springing from so many anonymous sources, and the idea gradually settled into a conviction that as a nation we had no navy, other than a sort of a dress-parade affair, illy able to do battle or protect our water-front in case of invasion by foreign powers which might at some time become hostile. Others, who recognized the fact that the white-winged messenger of Peace hovered over the land, questioned the necessity for a navy. Possible differences, it was argued, were to be settled by arbitration, and the maintenance of a naval fleet for home protection was a needless extravagance and one the government was hardly in position to afford. But the theory that it is best, in time of peace, to prepare for war, gradually drew into itself more supporters in official life than any other argument advanced, and resulted in the taking of some active steps looking to the decided betterment of naval affairs. The decision at the seat of government was that the claims of the navy to consideration and for its maintenance in a state becoming its usefulness and dignity rested not only upon its power to protect the commerce and citizens of the nation in time of peace, or even when they might become imperiled amid the sudden ebullitions of hostility which occasionally burst forth in countries with which we are on terms of amity, but rest also upon the most sacred traditions of the Republic. As a protective measure, however, a navy has not been necessary for years. At rare intervals the services of a man-of-war, plying in distant waters, are brought into requisition to redress or prevent a fancied indignity offered an American citizen by some effete monarchy; but in a general way our "relations with foreign powers," in the stereotyped language of Mrs. Victoria in her message to my lords and gentlemen, have for so many years been of a friendly and peaceable character that "invasion" has been a contingency so remote as to be hardly entitled to serious consideration.



THE ATLANTA AND THE BOSTON.

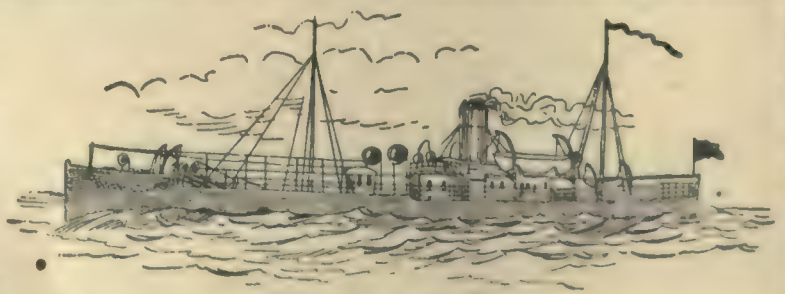
The government, however, since 1881 has been far from idle in putting the navy of the United States on a footing that will make it the pride of every good citizen instead of a mark for ridicule, and second only in power to that of Great Britain.

It will be remembered that the decade between 1870 and 1880 was marked by the most masterly inactivity in government ship-yards, and all this time grim decay was making a hearty meal on everything that had a hull. With the exception of a couple of monitors and torpedo boats, built in an experimental way, the entire naval fleet was comprised of wooden hulls, and at the time mentioned (1880) many were too far gone for repairs; others were fast going in the same direction. This was recognized by the then Secretary of the Navy, the late Hon. William H. Hunt, and it was under his direction in 1881 that the first advisory board was formed for the purpose of reporting upon the needs of the service, which they did to Congress, setting forth the fact that if it became necessary to protect American life or property the navy could make but a sorry attempt at it, and were wholly unable to make that display abroad which tended to inspire respect. The president of this advisory board was Rear-Admiral John Rogers, and associated with him were fifteen officers in the regular service representing its different branches, all of them of recognized ability and experience.

To them it was left to determine the number of new vessels that should immediately be built, their class, size, and displacement, the material of and form in which they should be constructed, kind and size of engines and other machinery, ordnance and armament necessary in each, equipment and rigging, internal arrangement, and probable cost of vessel when ready for service. The board began its duties in June, 1881, and in November of the same year made its report.

Public interest in the general question of an American navy had by this time reached a very high point, helped to it by a not unkindly press criticism, and there soon began a revival of iron and steel interests so far as they applied to vessel construction. It was found by the board that the requirements of the naval service, to keep the different squadrons up to proper standard, was seventy vessels. Of this number the naval register then contained thirty-two, including those available and in dry-dock, leaving thirty-eight to be constructed. Of this number twenty were to be built for a displacement of 793 tons and a speed of ten knots per hour; ten of 3,043 tons displacement and thirteen knots speed; six of 4,560 tons displacement and fourteen knots speed, while two were to make fifteen knots per hour and have a displacement of 5,873 tons. Five steel rams, the same number of torpedo gunboats, ten each of harbor and cruising torpedo boats, were also recommended. The board acknowledged the necessity of iron-clads for defense in time of war, but claimed the time at its disposal for the preparation of its report was too limited for it to reach a thoroughly satisfactory conclusion, but recommending the subject to the careful consideration of naval officers.

The requirements indicated above were based on a knowledge of what it was then possible to do in the way of ship-building, but they look old-fashioned now when vessels of no larger size are constructed in which the speed is increased fully thirty per cent. But it has never been charged that the first advisory board made any mistakes. The requirements of the service were most carefully considered, and among the fifteen were men who had an absolute, practical knowledge in the different branches of the service. On the vital question of construction material there was almost a unanimity of opinion in favor of steel, and the wisdom of the board in this direction has since been most highly commended. The decision was that steel should be used for vessels, guns and machinery and that more than anything else gave the impetus to this industry which has resulted in the home production of a material recognized everywhere as of the very highest standard.



THE VESUVIUS.

In a paper on the subject read before the United States Normal Institute, Lieutenant-Commander Eaton, late steel inspector of the new cruisers, had this to say:

"There can be no shadow of doubt that the navy is now obtaining for its latest additions a material superior in every good quality to any other ever used in any ship. I make no exception whatever. It is a subject of congratulation that from the advisory board of 1881 to the present day the navy has taxed the resources of the steel-makers to produce a quality of metal superior to their best. The requirements

have been severe, the inspection rigid; but it is gratifying to note how the steel has successfully advanced to meet both. The specifications for cruisers No. 1 to No. 5 and the four gunboats were denounced as impracticable and absurd; but now the much more severe specifications for the Maine and the Texas are accepted and carried out with thoroughness and cheerfulness. All attempts to set aside or reduce the qualifications have been firmly resisted by the secretary of the navy, and the steel board laying the foundation for ships which will float or fight with the best material on any ocean or under any flag."



THE MAINE.

In 1882 a second advisory board was formed, and, aided by the intelligent report of the first board, were soon ready with specifications for the construction of four cruisers, named later the Chicago, Boston, Atlanta and Dolphin. Their construction was authorized by acts of Congress August 5, 1882, and March 3, 1883, all four contracts being let in July following to John Roach & Sons, of Chester, Pa., the lowest bidders. The first vessel completed was the Dolphin.

This boat is schooner rigged, carries three masts, is 32 feet beam and 265 long; has an engine capacity of over 2,000-horse power, a displacement of 1,485 tons, and has a speed of 15¼ knots. This, being a maximum, is not regularly made. She carries a two-cylinder compound vertical direct-acting engine, propelling a four-bladed wheel of a little over 14 feet diameter. She is effectively armed, carrying a 6-inch breech-loader rifle mounted in such a manner that it can be used on either side. In addition to this gun there are on the forecastle two 6-pounders, rapid firing, and in fixed armoured towers at her side four revolving cannon. When launched she was assigned to the north Atlantic squadron, but in '87 was changed to the Pacific and made a flagship, for which service her ample cabin room makes her peculiarly fitted.



THE FLAGSHIP CHICAGO.

The cut on opposite page represents the Atlanta, though it answers equally well for the Boston, as they are twins in every respect except speed, the Atlanta falling on her trial trip 150-horse-power below the required contract development of 3,500 horse-power, and the Boston exceeding requirements by about the same amount. They are both of 3,189 tons, with an unusually heavy armament for their class of men-of-war, consisting of one 8-inch breech-loading gun, firing a 250-pound projectile, mounted in barbette just forward of the superstructure on the port side, and another of the same size, also in barbette, aft on the starboard side, and six 6-inch guns inside the superstructure; also a secondary battery of two 6-pounder rapid-firing guns in broadside ports, two 3-pounder rapid-firing guns, and two 47-mm. revolving cannons in towers, two 1-pounders on top of starboard forward and port after tower, a 37-mm. revolving gun in each top, and two Gatlings. The machinery consists of a three-cylinder compound horizontal back-acting engine. There are eight horizontal return tubular boilers, and a coal capacity of about 500 tons. A speed of sixteen knots has been made under favorable circumstances. The protective plating over engines and boilers is 1½ inches in thickness. These vessels are 283 feet long, 42 beam, draw 17 feet of water, and spread somewhat over 10,000 square feet of canvas. The contract cost of hull and machinery for Atlanta was $617,000, and Boston $619,000. Their rigging is the same, but presents some peculiar and unusual features, one of the most marked being the bringing together of the poop deck and top-gallant forecastle, thus forming a superstructure amidships, and leaving the deck fore and aft clear for gun service in time of action. At the time of the launch there was considerable adverse criticism on this point, many seamen claiming the vessel could not be handled in a gale, could not be made to "lie to," etc., but so far the boats have behaved well at sea and proved efficient cruisers, the Boston a little speedier than the Atlanta, as stated. Both are square rigged with masts well amidships. These features were in the nature of innovations, and not kindly taken to by many, but theorists who were formerly objectors realize now that with a 3,500 horse-power engine aboard a cruiser does not lie in the trough of the sea, depending on a close-reefed mainsail to keep her steady.

When the Chicago, the fourth steel ship of the Navy to be built, was completed, the people had reason to feel very proud. Her first steam trial proved the truth of the American claim that as soon as a want is really felt just so soon that want will be supplied. Not only was this fine vessel built of American material by American workmen, but her designers were entirely composed of the line, engineer and construction officers of the Navy. She was built by John Roach & Sons, of Chester, Pa.; after necessary changes had been made, was commissioned into service in 1889; and is the pride of the American navy, the largest of the cruisers, measuring 4,500 tons. Her length is 334 feet 4 inches over all, extreme beam 48 feet 2-5 inches. She is bark-rigged, carrying nearly 5,000 yards of canvas; has capacity for 940 tons of coal, and draws but 19 feet of water. Her motive power equipment consists of two compound overhead beam engines, working two 4-bladed screws some 15½ feet in diameter. She has a nest of five double-ended externally fired boilers. On her trial trip she developed 5,084 collective horse-power and a mean speed of 15.3 knots, the maximum for one hour being 16.3. Running ten knots it is estimated that she can steam for twenty days and make about 5,000 miles. She is, like the Dolphin, intended for a flagship, though her armament is particularly heavy. The mounting of heavy guns on half turrets is original with the Chicago. These—four 8-inch cannon—are carried on the spar deck, built out from the ship's side, stand twenty-four and one-half feet above the water line, and command the entire horizon. In the broadside ports on the gun deck are six 6-inch guns and also a 6-inch gun on each bow. In the after portion of the cabin there are two 5-inch guns. Her secondary battery consists of two Gatlings, two 6-pounders, two 1-pounders, two 47-mm. and two 37-mm. revolving cannon. This ship is manned by a crew of 300. Her steering apparatus is considerably below water line, protected by a deck one and one-half inches thick, worked well over the machinery.



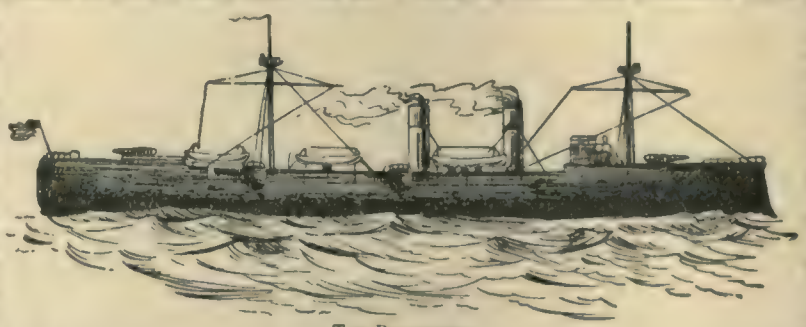
THE SAN FRANCISCO.

It was not until March, 1885, that Congress again authorized the construction of more vessels, the contracts this time going to Messrs. Cramp of Philadelphia, who, in April, 1887, turned out the gunboat Yorktown and the dynamite cruiser Vesuvius. Competition for these contracts was very close, the administration having advanced ideas, encouraged them by offering premiums for the best plans, irrespective of nationality of the designer. This stimulated a very healthy competition, the government being decidedly the gainer in that American ship-builders were forced to greater efforts by reason of foreign competition. The contracts were let on a better business basis than formerly, in that there were limitations as to time, penalty clauses, etc. On the other hand there were premiums for excess of speed above requirements. This, as much as anything, has tended to do away with a reliance of sails and throw more dependence on steam-power. The advantage in absence of spars and rigging is considered very great. Another marked advantage gained by making it an object for skilled interests to compete for American ship-building has been the gradual increase in speed attained, the improved arrangement of battery, rig machinery, and the doing away with useless spars and rigging.



THE CHARLESTON.

The Yorktown was the first gunboat constructed under the act of March, 1885, at Philadelphia. Her size belies her name as a gunboat, for her measurements are: Length, 230 feet; beam, 36 feet; displacement, 1,700 tons; at this tonnage she draws 14 feet of water. Her hull is steel. She carries two sets of triple expansion boilers, with forced draught, will doubtless develop 3,200 horse-power and result in a speed of seventeen knots. Her coal capacity is 400 tons. For a battery she has six 6-inch breech-loading rifles, two being well forward and two aft, and one on either side of her central section, all fitted with steel shields to protect the crew. As a secondary battery she carries five rapid-fire guns, two Hotchkiss revolving cannon, one Gatling, and eight torpedo tubes. She is propelled by twin screws. The contract price of this vessel, including hull and machinery, was $445,000. Twelve months after the letting of contracts were allowed in which to build her, but departures from original plans and delays in getting proper material for construction purposes made it necessary to extend this limit somewhat.



THE BALTIMORE.

The Charleston was launched at San Francisco in July, 1888. A peculiar feature in her construction is that she has a complete double bottom divided into numerous water-tight compartments, with her engine and other machinery entirely surrounded and protected by coal. Added to this is a protection deck curving from the point of her ram to her stern. Her electric plant for lighting and searching is in duplicate. Although carrying a fore-and-aft sail, her dependence for speed is on two sets of two-cylinder compound engines, developing under forced draught 7,500 horse-power and a speed of nineteen knots. Her armament is two 10-inch guns forward and aft, and six 6-inch, three on either side on sponsons, increased train being permitted by recessed bulwarks. As a secondary she has four 6 pound rapid-fire guns, six Hotchkiss revolving cannon, and four Gatlings. Her coal supply is 800 tons.

The Baltimore, also launched at San Francisco, a couple of months later than the Charleston, is a protected cruiser of 4,413 tons displacement, 315 feet length, 48½ feet beam, drawing 19½ feet mean. Her horizontal, triple-expansion engines are, like the Charleston's, protected. In addition to a regular armament of four 8-inch guns on the poop and forecastle, on sponsoned platforms, and six 6-inch guns on the spar deck, with six Hotchkiss and four Gatlings, she carries five torpedo tubes, firing ahead, aft and sides, the bow tube training at an angle of 45 degrees. She carries but two masts, with fore-and-aft sail, the masts fitted, like those on the Charleston, with military tops. Her maximum speed over a measured mile is to be twenty knots with forced draught (blower), and seventeen knots with natural draught.

The Petrel is a Baltimore boat, launched by Cramp, and is one of the smallest yet constructed, being only 175 feet in length, 31 feet beam, displacement 870 tons, and drawing 11 feet 7 inches of water. She is barkentine rigged, spreading 1,853 feet of canvas. Additional motive power comes from a set of compound engines developing 1,000 horse-power. Her average speed is 11½ knots. Although small it is considered she will do efficient work with four 6-inch guns, mounted for all-around fire; rapid-firing guns on forecastle and poop, and a Hotchkiss revolving cannon on each side. Ten officers and 100 men will handle her. While perhaps too small for the comfort of those who will have to go to sea in her, she represents a general type of small vessel of which the navy is greatly in need.

Five monitors, of which the Puritan is a fair illustration, the others being the Miantonomah, Monadnock, Terror, and Amphitrite, should be included in the list of vessels comprising the modern additions to the navy. The Puritan is the largest of the five, 6,000 tons, the Terror and Amphitrite being each 3,815 tons. All have a speed of about 10½ knots, and engine capacity indicating 1,426 horse-power. Amidships there is an armor belt seven inches thick, but at the bow and stern it tapers to five inches. In all of them the covering-towers, smoke-stack and revolving turrets are protected by armor varying from nine to eleven and one-half inches in thickness.

The Newark is a bark-rigged ship and has a large sail area in addition to two sets of triple-expansion engines, capable of developing 8,500 horse-power and a speed of about 18 knots. Her deck, machinery, etc., are thoroughly protected. She is 310 feet long, 49 feet beam, 20½ feet draught, and 4,083 tons displacement. For a battery she carries twelve 6-inch guns, mounted so as to secure direct ahead and stern fire from four guns and beam fire from six. She has a secondary battery of four 6-pound rapid-fire guns, four Hotchkiss revolving cannon and four Gatlings. Torpedo tubes, six in number, are to be fitted, having a train of 90 degrees.



THE NEWARK.

The Philadelphia is a protected cruiser, somewhat similar to the Baltimore, carrying twelve 6-inch guns, two on the forecastle, two on the poop, and two on either broadside. Her speed was to be nineteen knots, her builders forfeiting $50,000 for each quarter of a knot she fell below this speed, but being paid an equal sum as a premium for every quarter knot in excess of the requirement. On the trial she exceeded this by .07 of a knot, earning a premium of $35,000 for her builders. The design for hull and engine was made by Messrs. Cramp, the contract price being $1,350,000, with two years allowed for completion.

At the old Roach yard in Chester, Palmer & Co. have built the

Concord and Bennington, gunboats on the general plan of the Yorktown. The keels were laid in 1888. On these boats the government paid $100 for each horse-power in excess of the amount contracted for, there being a forfeit of exactly reverse terms. Exclusive of armament the boats cost $400,000 each. The agreement was they should be completed three years from November 15, 1887, at which time the contract was signed. They were launched in 1890.

The battle-ship Texas is the largest yet attempted in the Norfolk yards, and is to be constructed after plans furnished by Mr. W. John, though they are subject to slight modification. Her displacement with 950 tons of coal aboard is 6,750 tons. Her length, 290 feet; extreme beam, 51 feet 1 inch. She will have a double bottom, watertight compartments, complete electric outfit, and, exclusive of armament, will cost $2,376,000.

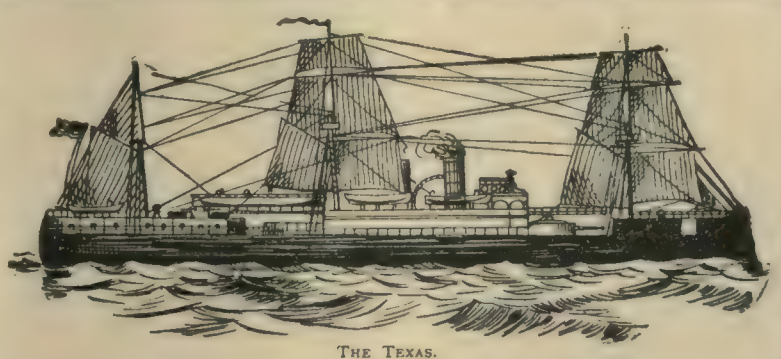
Her main battery will consist of two 12-inch guns in turrets en echelon—the port one forward and the starboard aft—the turrets having twelve inches of steel armor. Her six 6-inch guns, which complete the main battery, are mounted, two each side of the lower deck, in sponsons—one forward on the upper deck, and the other aft. The secondary battery is composed of four 6-pounders, four 3-pounders, eight revolving cannon, two Gatlings, and four launching torpedo tubes. The estimated speed is seventeen knots; indicated horse-power, 8,600 with forced draught. She has twin screw triple expansion engines, with 39-inch stroke. She carries a water-line belt of 12-inch steel armor, protecting magazines, engines and boilers, with an armored redoubt running across the main deck, protecting the bases of the turrets and their machinery. A protective deck 3 inches in thickness, and heavy coal protection, are intended to further secure her vitals against the enemy's projectiles.



THE PURITAN.

The Maine represents an outlay of $2,500,000, or about $100,000 more than the Texas. She is bark-rigged, carrying 7,135 feet of canvas, besides an engine capacity of 8,750 horse-power, from which a speed of 17 knots will be derived, using the force draught; steaming at 10 knots her coal capacity will carry her 7,000 miles. She is 310 feet in length, 57 feet beam, 6,648 tons displacement, and draws 21½ feet of water. Her armament is four 10-inch guns in pairs in the two turrets placed "en echelon" on the main deck, the forward turret in this case being on the starboard side and the after one on the port. Two of the 6-inch guns are in recessed ports in the bow, two similarly placed in quarter ports; the remaining two are in broadside on the superstructure deck, all being provided with 2-inch shields for the protection of their crews. The secondary battery is made up of four 6-pounders and four 3-pounders, rapid-fire guns, 13 revolving cannon and four Gatlings, with seven torpedo tubes. Her twin screws are worked by two triple expansion engines in separate compartments. A feature of the Maine is her steel protection. This consists of an armor belt 180 feet long, having a thickness of 11 inches to a depth of one foot below the water line. Athwart ship there is a bulkhead six inches thick. The base of turrets are protected by oval redoubts 10 inches thick, as are also loading tubes, machinery, etc.

Owing to the elastic nature of the proposals on this vessel, bidders being allowed to submit figures on what they consider more suitable than that proposed by the government, it is expected she will, when finished, sometime during 1893, be without an equal in any service for the work she is intended to perform, that of coast defense. Her entire material is to be American production. Some novel features are expressed in the plans, particularly in the way of armament. The largest caliber gun yet recommended by the ordnance bureau, a 16-inch 110-ton gun, will be mounted forward, while aft she will carry a 12-inch 46-ton. In the bow there will be a huge 16-inch dynamite tube, and judiciously distributed for effective service fifteen rapid-fire guns of various caliber. In the 110-ton gun the projectile will weigh 2,000 pounds, requiring a powder charge of 1,000 pounds. The smaller gun, the 46-ton, will carry a projectile of 850 pounds, using a charge of 425 pounds. It will thus be seen that for her displacement (6,648 tons) she will be one of the heaviest armed vessels in the world, and in conjunction with submarine mines and shore batteries will render it almost impossible for an enemy's vessels to enter the harbor in which she is stationed. The fore and main masts are fitted with military tops, and carry machine guns and a powerful search light in the top. Her duplicate electrical fitting-steering gear and other arrangements will be of the most approved patterns. She is to be of the low free-board monitor type, and of sufficiently light draught to enable her to enter all our principal ports. She will also be fitted for ramming, having great speed, stability and handiness. A belt of steel armor 16 inches thick protects her hull. Magazines, machinery, etc., are subject to additional protection. The length of this vessel will be 250 feet, beam 59 feet, draught 14 feet. Vertical and inverted triple-expansion engines generate a horse-power estimated at 9,000.



THE TEXAS.

The dynamite cruiser Vesuvius is a veritable dealer of death and destruction totally unlike anything yet launched. She is built largely for speed, long and narrow (252x26), 811 tons displacement, and draws but nine feet of water. Two triple-expansion engines of four cylinders each give her a speed of considerably over twenty knots, and proves her the fastest vessel of the kind in the world. Her armament is for throwing dynamite shells from three 16-inch tubes mounted in her forward section and solidly built into the ship at a permanent angle of 16 degrees, the vessel itself being the gun-carriage. All training is to be accomplished by the steering apparatus, the range of the projectiles being regulated by the amount of pressure of the air admitted to the tubes, which are 54 feet in length. The charge for these fiendish projectiles is 600 pounds of explosive gelatine, having a destructive radius of more than 100 feet.

The San Francisco was launched at the city whose name she bears. Her hull resembles the Newark, but her battery disposition is thought to be more effective. Guns are placed on the forecastle and poops, extreme forward and aft sponsons being done away with. Her guaranteed speed is 19 knots for four consecutive hours, provision being made in the contract for a forfeit of $50,000 for each quarter of a knot she falls below that, and also a bonus for the same excess. Her sail arrangement is fore-and-aft rigging carried on three masts, the fore and main mast having military tops. Contracts for her construction were let in October, 1887, for $1,428,000 to the Union Iron Works at San Francisco, and she went into commission in 1890.

The torpedo boat Cushing is the only other vessel now in service that was built for the new Navy; the Stiletto, commissioned in 1888, having been purchased. Another torpedo boat is building at Dubuque, Iowa. "The Pirate," Cruiser No. 12, is nearly ready to be launched at Philadelphia, and her sister, No. 13, is soon to follow. Other ships, now in course of construction are, the armored vessels Monterey, New York, Massachusetts, Indiana, Oregon and Harbor Defense Ram No. 1; the unarmored cruisers Cincinnati, Detroit, Raleigh, Montgomery, Marblehead and Cruiser No. 6; the steel gunboats Machias and Gunboat No. 6; and the Practice Cruiser for naval cadets.

Besides the above vessels completed and in commission, or in course of construction, there are several others that would be useful in case of actual war, including six cruisers of iron, the iron torpedo-boat Alarm, and the thirteen iron-clads or "cheese-box" single-turreted monitors of the Ericsson design.

The history of ship-building on American soil, as shown by this exhibit, proves that a constant and successful effort has been made in the direction of lessening displacement, increasing speed, doing away with cumbersome rigging, perfecting machinery and bringing batteries up to the highest point of destructive power.

THE ✣ POST-OFFICE ✣ DEPARTMENT.

THE POSTMASTER-GENERAL is appointed by the President. His term, unless he dies, resigns or is removed, continues for one month after the Presidential term expires. There are four Assistant Postmasters-General, appointed by the President, and an Assistant Attorney-General, appointed by the Postmaster-General, in this Department.

THE OATH.

Every person employed in the postal service, from the Postmaster-General down, before entering upon his or her duties, or drawing any salary, takes the following oath:

"I, A. B., do solemnly swear (or affirm) that I will faithfully perform all the duties required of me, and abstain from everything forbidden by the laws, in relation to the establishment of post-offices and post-roads within the United States; and that I will honestly and truly account for, and pay over, any money belonging to the said United States which may come into my possession or control: So help me God."

Controlling the machinery of the whole postal system, the *duties* of the Postmaster-General are multifarious, and most of them appear plainly in the detailed workings of the service. The Postmaster-General reports annually to Congress all contracts for carrying the mails made within the preceding year, with all particulars concerning them; a statement of all land and water mail routes established within the year, and of all allowances made to mail contractors above the contract prices, and why; a detailed statement of the finances of the Department; a report of fines assessed against mail contractors; a copy of each contract for carrying mails between the United States and foreign countries, and a statement showing its benefits to the Department; a report on the postal business and agencies in foreign countries; a statement of the money expended in the Department, with details.

The Personnel

Of a post-office in one of the larger cities consists of the Postmaster, his private secretary and inquiry clerk, Assistant Postmaster, auditor of accounts, bookkeeper, cashier, watchman, mailing clerks, delivery clerks, letter carriers, registered letter clerks, money order clerks, special postal agents.

The Work.

THE POSTMASTER having general supervision, his private secretary attends to the correspondence relating to the business of the office.

THE INQUIRY CLERK receives all complaints about missing letters, and institutes searches for them.

THE ASSISTANT POSTMASTER is the ever present superintendent.

THE AUDITOR examines and corrects the accounts of the Postmaster with the Government, and with his subordinate officers, clerks and employes.

THE BOOKKEEPER keeps the accounts of the Postmaster with the Government, and with every person doing business with his post-office.

THE CASHIER has supervision of all the money paid into or out of the post-office, and provides for its safe keeping and proper deposit with the United States Sub-Treasurer or in some other designated place.

THE MAIL CLERKS open all packages of letters addressed to the office, count and compare them with the post bills accompanying the packages, and check any errors in the bills, file the bills and send the letters to the letter carriers' department, the general delivery, the registry office or the money order office, as may be necessary.

If the office is a distributing post-office, letters for other places within the distributing limits of the office are sorted, billed, repacked and forwarded; some of the clerks sort out newspapers and periodicals for delivering or mailing; other clerks receive, sort, stamp, bill and mail letters for other places; others receive and mail transient newspapers; others receive newspapers and periodicals sent from publishers direct to subscribers, weigh them to find out the amount of postage to be prepaid, and send the account to the proper officer. These papers are then forwarded without further charge.

DELIVERY CLERKS receive letters, papers and periodicals not directed to any special box, street or number, and place them in the general delivery, to be called for by the owners. Letters directed to a specified box are placed in it and remain until called for.

THE SUPERINTENDENT OF FREE DELIVERY has charge of the letter-carriers.

One or more clerks in the general delivery assort and deliver the letters and papers sent to their department.

When letters remain a set time in the general delivery without being called for, they are advertised and kept a certain time longer, and are then forwarded to the Dead Letter Office.

POSTAL AGENTS superintend the railway postal service, and the special agents in the free delivery and money order service, in the interest of the Post-office Department.

Writer's Address.

Letters bearing upon the outside the name and address of the writer are not advertised, but, if not called for within the time mentioned on them, having been prepaid, are returned without further charge.

Postal Cars.

On the railway postal cars the clerks sort the mails for each station on the route and deliver them whilst in motion by throwing the bags off the car at the proper places, or handing them to the mail messengers at the depots where the train halts.

Postmasters.

There are four classes of postmasters. The fourth class, who do the least business, are appointed by the Postmaster-General; the others by the President. A Postmaster must reside within the delivery of his office. He must, before entering upon his duties, give bond to the Government for their faithful performance, with good security. If a money order office, there are additional conditions on the bond. He must every three months report to the Postmaster-General a sworn statement of all moneys received by him from postage or other sources connected with his department. If he neglects for one month to make this quarterly return he and his sureties forfeit and pay double the amount of the gross receipts at his office during any previous or subsequent period of time, and if at the time of trial no account has been rendered, they are liable to a penalty in such a sum as may be estimated equivalent.

In a city where there is an Assistant Treasurer of the United States, the Postmaster must deposit with him all moneys collected. Where there is no Assistant Treasurer the Postmaster must keep such funds safely, subject to the order of the Postmaster-General. He can neither lend, use, deposit in an unauthorized bank, nor exchange for other money, the public funds which come into his hands.

CONTRACTS for carrying the mails (except in the railway service) are made with the lowest bidder, he giving ample security for the performance of the work.

THE RAILWAY SERVICE is classified according to the amount of mail moved. Companies owning routes of the first class are paid $300 per mile per year; second class, $100; third class, $50.

LETTER-CARRIERS are employed in towns where there are 20,000 inhabitants. They must give bond with security. They are uniformed. Any person assaulting a letter-carrier while performing his duty is liable to a fine of from $100 to $1,000, or imprisonment from one to three years.

Rates of Postage.

POSTAL CARDS, 1 cent each, go without further charge to all parts of the United States and Canada. Cards for foreign countries (within the Postal Union), 2 cents each.

ALL LETTERS, to all parts of the U. S., Mexico and Canada, 2 cents per ounce or fraction thereof.

LOCAL, OR "DROP" LETTERS, that is, for the city or town where deposited, 2 cents where the carrier system is adopted, and 1 cent where there is no carrier system.

FIRST CLASS.—Letters and all other written matter, whether sealed or unsealed, and all other matters sealed, nailed, sewed, tied or fastened in any manner so that it cannot be easily examined, 2 cents for each ounce or fraction thereof. Postal cards, 1 cent each. Postal cards are unmailable with any writing or printing on the address side, except the direction, or with anything pasted upon or attached to them.

SECOND CLASS.—Only for publishers and news agents; 1 cent per pound.

THIRD CLASS.—Printed matter, in unsealed wrappers only (all matter inclosed in notched envelopes must pay letter rates), 1 cent for each two ounces or fraction thereof, which must be fully prepaid. This includes books, circulars, chromos, engravings, handbills, lithographs, magazines, music, newspapers, pamphlets, photographs, proof-sheets and manuscript accompanying the same, reproductions by the electric pen, hektograph, metallograph, papyrograph, and, in short, any reproduction upon paper by any process except handwriting and the copying press. Limit of weight, 4 pounds, except for a single book, which may weigh more.

FOURTH CLASS.—All mailable matter, not included in the three preceding classes, which is so prepared for mailing as to be easily withdrawn from the wrapper and examined. Rate, 1 cent per ounce or fraction thereof. Limit of weight, four pounds. Full payment compulsory.

Foreign Postage.

COUNTRIES.	Letters, per ½ oz.	Newspers, per 4 oz.	COUNTRIES.	Letters, per ½ oz.	Newspers, per 4 oz.
Ascension	15	4	Natal and Zululand	15	4
Cape Colony	15	4	Norfolk Island	12	2‡
China, via Brindisi	13	5	Orange Free State	15	4
Comoro Islands	5	1†	Queensland	12	2‡
Madagascar (except French Stations), British mail.	13	4	Samoan Islands	12	2‡
Morocco (except Sp. possessions).	15	2†	St. Helena	15	4
			Transvaal and Bechuanaland	12	5

† Per 2 ounces. ‡ Per copy.

ALL COUNTRIES EXCEPT THE ABOVE ARE IN THE UNIVERSAL POSTAL UNION, within which the rates are as follows:

Letters per ½ ounce		5 cents.
Postal cards, each		2 cents.
Newspapers and other printed matter, per 2 ounces		1 cent.
Commercial papers.	Packets not in excess of 10 ounces	5 cents.
	Packets in excess of 10 ounces, for each 2 ounces, or fraction thereof.	1 cent.
Samples of merchandise.	Packets not in excess of 4 ounces	2 cents.
	Packets in excess of 4 ounces, for each 2 oz., or fraction thereof.	1 cent.

Postmasters-General.

Samuel Osgood, Mass.	1789	Joseph Holt, Ky.	1850
Timothy Pickering, Penn.	1791	Horatio King, Mo.	1861
Joseph Habersham, Ga.	1795	Montgomery Blair, Md.	1861
Gideon Granger, Conn.	1802	William Denison, Ohio.	1864
Return J. Meigs, Ohio.	1814	A. W. Randall, Wis.	1866
John McLean, Ohio.	1823	John A. J. Creswell.	1869
William T. Barry, Ky.	1829	Marshall Jewell.	1874
Amos Kendall, Ky.	1835	James N. Tyner.	1876
John M. Niles, Conn.	1840	David M. Key.	1877
Francis Granger, N. Y.	1841	Horace Maynard.	1880
Charles A. Wickliffe, Ky.	1841	Thomas L. James.	1881
Cave Johnson, Tenn.	1845	Timothy O. Howe.	1881
Jacob Collamer, Vt.	1849	W. Q. Gresham.	1883
Nathan K. Hall, N. Y.	1850	Frank Hatton, Iowa.	1884
Samuel D. Hubbard, Conn.	1852	William F. Vilas, Wis.	1885
James Campbell, Penn.	1853	Don M. Dickinson, Mich.	1888
Aaron V. Brown, Tenn.	1857	John Wanamaker, Pa.	1889

BOARD ON GEOGRAPHIC NAMES.

That uniform usage in regard to geographic nomenclature and orthography shall obtain throughout the Executive Department of the Government, and particularly upon maps and charts issued by the various departments and bureaus, this board is constituted. To it shall be referred all unsettled questions concerning geographic names which arise in the Departments, and the decisions of the board are to be accepted by the Departments as the standard authority in such matters.

THE DEPARTMENT OF THE INTERIOR.

A LIST of the Bureaus over which the Secretary of the Interior has supervision includes the following: The census, the public lands and mines, the Indians, pensions and bounties, patents for inventors, and education. He reports annually to Congress all claims for depredations committed by the Indians, all the expenditures of the different branches under his charge, and estimates for further appropriations. The transactions of this department are conducted through six branches, each governed by a Commissioner:

The General Land Office.
The Bureau of Indian Affairs.
The Pension Office.
The Patent Office.
The Bureau of Education.
The Bureau of Railroads.

The Commissioner of the General Land Office

Superintends the survey and sale of the public lands of the United States; issues patents for all lands granted by authority of government. Plats of surveys and all information concerning the public lands can be found in his office. All patents issued from the office are signed by the President, countersigned by the Commissioner, and have the seal of the office affixed.

A Surveyor-General is appointed to each of the districts: Oklahoma, Louisiana, Florida, Minnesota, Kansas, Nebraska, Iowa, Dakota, Oregon, Washington, Colorado, New Mexico, California, Idaho, Nevada, Montana, Utah, Wyoming and Arizona. When the surveys in any State are finished and all the maps, field notes and other records turned over to the Secretary of State of such State, the office of Surveyor-General ceases in that State.

How to Secure a Homestead.

The public lands open to settlement are divided into two classes with respect to price, one class being held at $1.25 per acre as the minimum price, the other at $2.50 per acre; being the alternate sections reserved by the United States in land grants to railroads, etc. Such tracts are sold on application to the Registers and Receivers of the district land offices to legally qualified parties upon conditions of actual residence and improvement under the pre-emption laws. Widows, heads of families, or single persons over twenty-one years of age, if citizens of the United States, or aliens who have declared their intention to become citizens, have the right of pre-emption to the maximum quantity of 160 acres each on becoming settlers and complying with the regulations.

Under the homestead laws a citizen, or an alien having declared his intention to become a citizen, has the right to 160 acres of either the $1.25 or $2.50 class after actual residence and cultivation for five years. Under the timber culture law a citizen, or one who has declared his intention to become such, if the head of a family, or a single person over twenty-one years, may acquire title to 160 acres on cultivating 10 acres of trees thereon for eight year. By the act of August 30, 1890, no person can acquire under all the land laws an aggregate area of more than 320 acres of the public lands.

Land Offices.

In *Missouri*, at Boonville, Ironton and Springfield; *Alabama*, at Huntsville and Montgomery; *Louisiana*, at New Orleans, and Natchitoches; *Michigan*, at Grayling and Marquette; *Arkansas*, at Dardanelle, Little Rock, Camden and Harrison; *Florida*, at Gainesville; *Iowa*, at Des Moines; *Wisconsin*, at Menasha, Ashland, Wausau and Eau Claire; *California*, at San Francisco, Marysville, Humboldt, Stockton, Visalia, Sacramento, Los Angeles, Independence, Redding and Susanville; *Nevada*, at Carson City and Eureka; *Washington*, at Olympia, Vancouver, North Yakima, Seattle, Spokane Falls, Waterville and Walla-Walla; *Minnesota*, Taylor's Falls, St. Cloud, Duluth, Crookston and Marshall; *Oregon*, at Oregon City, Roseburgh, Le Grand, Burns, The Dalles and Lake View; *Kansas*, at Topeka, Salina, Garden City, Kirwin, Larned, Oberlin and Wa Keeney; *Nebraska*, Lincoln, Grand Island, North Platte, Alliance, Bloomington, Broken Bow, Chadron, McCook, Neligh, O'Neill, Sidney and Valentine; *Colorado*, at Pueblo, Akron, Del Norte, Durango, Glenwood Springs, Gunnison, Hugo, Lamar, Leadville, Montrose, Sterling, Denver City and Central City; *New Mexico*, at Santa Fe, Folsom, Las Cruces and Roswell; *Idaho*, at Boise City, Blackfoot, Coeur d' Alene, Hailey and Lewiston; *Montana*, at Helena, Bozeman, Lewistown, Miles City and Missoula; *Utah*, at Salt Lake City; *Wyoming*, at Cheyenne, Buffalo, Evanston, Lander, Douglas and Sundance; *Arizona*, at Prescott and Tucson; *Mississippi*, at Jackson; *North Dakota*, at Bismarck, Devil's Lake, Fargo, Grand Forks and Minot; *South Dakota*, at Aberdeen, Chamberlain, Huron, Mitchell, Pierre, Rapid City, Watertown and Yankton; *Alaska*, at Sitka; *Oklahoma*, at Oklahoma City, Beaver, Guthrie and Kingfisher.

THE BUREAU OF INDIAN AFFAIRS.

ALL matters concerning the Indians are in charge of the Commissioner of Indian Affairs. He examines all accounts and vouchers for claims and disbursements connected with Indian affairs. He reports annually a tabular statement showing the several objects of expenditure under his supervision, and embodying the statements of all agents issuing supplies of any kind to the Indians, with the number of Indians receiving them.

There is an Advisory Board connected with this Bureau, consisting of not more than ten persons, appointed by the President. Members of this Board receive no compensation; they are chosen as men eminent in the community, who have exhibited some peculiar mark of fitness for the position. The Board supervises the expenditures of money appropriated for the Indians, and inspects all goods purchased for them. It has access to all books and papers relating to Indian affairs in any Government office. The Board has no direct power further than that of inspection.

Inspectors.

From one to five Indian Inspectors are appointed by the President. Their duty is to visit twice a year each Indian superintendency and agency, and fully investigate all matters belonging to the business of each, including the examination of accounts, the manner of expending the money, the number of Indians provided for, contracts of all kinds, the condition of the Indians, their advance in civilization, the extent of the reservations, and what use is made of the lands set apart for that purpose, and all matters belonging to the Indian service.

Each inspector has power to examine on oath all officers and others in and about the superintendencies and agencies, and to suspend any superintendent or employe and appoint others temporarily. He has power to enforce the laws in the several agencies and superintendencies. The same inspector does not visit and investigate any agency or superintendency twice in succession.

Four or more superintendents are appointed by the President. Their duties are each in his own district to supervise and control the official conduct and acts of all persons employed by the Government in Indian affairs.

Indian Agents.

Indian Agents are appointed by the President. They must give bond with good security before enlisting upon their duties. Every agent must reside and keep his agency near the tribe of Indians to which he is assigned. Within his agency he manages and superintends the intercourse with the Indians and enforces all rules prescribed to him. No person employed in Indian affairs may have an interest in any trade with them, under a penalty of $5,000 and removal from office.

Teachers may be employed for the improvement of the Indians, when it is deemed opportune.



THE PATENT OFFICE.

Indian Traders.

A bond of $5,000, with approved security, must be given warranting the observance of all laws with respect to intercourse with the Indians, by any one proposing to become an Indian trader.

Pension Office.

The Commissioner of Pensions has the management of this office. Pension Agents are required to give bond; they receive a salary of $4,000 per annum, and fifteen cents for each voucher in excess of four thousand vouchers prepared and paid by them. Agents and their clerks may take the affidavits of pensioners and their witnesses, but receive no fee for that service. In paying pension the agent is authorized to deduct the attorney's fee for aiding the pen-

sioner. He retains a fee of thirty cents for this service. Pension surgeons receive $1,800 a year; the medical referee receives $2,500.

Boards of examining surgeons consist of three members. In ordinary cases each member receives one dollar fee; in special examinations, three dollars.

Patent Office.

In this Bureau are kept all records, books, models, drawings, specifications and other papers and things belonging to patents for inventions.

The Commissioner of Patents and the chief clerk are required to give bond. No officer or employé in the Patent Office is allowed to acquire or take during his or her term of office any right or interest in any patent issued by the office. The Commissioner of Patents has copies of patent claims, laws, regulations and circulars printed for the information of the public. He makes an annual report to Congress of all matters committed to his charge.

Commissioner of Railroads.

The Commissioner of Railroads is charged with prescribing a system of reports to be rendered to him by the railroad companies whose roads are in whole or in part west, north, or south of the Missouri River, and to which the United States have granted any loan of credit or subsidy in lands or bonds; to examine the books, accounts and property of said companies; to see that the laws relating to said companies are enforced, and to assist the Government Directors of any of said railroad companies in all matters which come under their cognizance, whenever they may officially request such assistance.

Geological Survey.

The Director of the Geological Survey has charge of the classification of the public lands, and examination of the geological structure, mineral resources and products of the national domain.

The Census Office.

The Superintendent of the Census supervises the taking of the census of the United States every tenth year, and the subsequent arrangement, compilation and publication of the statistics collected.

Bureau of Education.

The duties of the Commissioner of this Bureau consist in the collection of facts and figures showing the condition and progress of education in the several States and Territories, to diffuse information with regard to the management of schools and methods of teaching, and promote the cause of education.

Secretaries of the Interior.

Thomas Ewing, Ohio.	1849	Columbus Delano.	1870
Alex. H. H. Stewart, Va.	1850	Zachariah Chandler.	1875
Robert McClelland, Mich.	1853	Carl Schurz.	1877
Jacob Thompson, Miss.	1857	Samuel J. Kirkwood.	1881
Caleb B. Smith, Ind.	1861	Henry M. Teller, Colo.	1884
John P. Usher, Ind.	1863	L. Q. C. Lamar, Miss.	1885
James Harlan, Iowa.	1865	William F. Vilas, Wis.	1888
O. H. Browning, Ill.	1866	John W. Noble.	1889
Jacob D. Cox.	1869		

The Department of Labor.

A BUREAU OF LABOR, connected with the Department of the Interior, was established by act of Congress, June 27, 1884. By an act of Congress June 13, 1888, a Department of Labor was created, and the Bureau of Labor transferred to the Department of Labor.

The Department is placed in charge of a Commissioner of Labor, who is directed to acquire and diffuse among the people of the United States useful information on subjects connected with labor, in the most general and comprehensive sense of that word, and especially upon its relation to capital; the hours of labor; the earnings of laboring men and women, and the means of promoting their material, social, intellectual and moral prosperity. He is also especially charged, in accordance with the general design and duties prescribed by the law, at as early a date as possible, and whenever industrial changes shall make it essential, to ascertain the cost of producing articles, at the time dutiable in the United States, in leading countries where such articles are produced, by fully specified units of production, and under a classification showing the different elements of cost of such articles of production, including wages paid in such industries, etc.

It is also the duty of the Commissioner to ascertain and report as to the effect of the customs laws upon the currency and on the agricultural industry; especially as to their effect on the mortgage indebtedness of farmers; what articles are controlled by trusts, or other combinations of capital, business operations, or of labor, and what effect such trusts, or other combinations of capital, business operations, or of labor, have on production and prices.

The Commissioner is also to establish a system of reports, by which, at intervals of not less than two years, he can ascertain the general condition, so far as production is concerned, of the leading industries of the country. He is also especially charged to investigate the causes of, and facts relating to, all controversies and disputes between employers and employés as they may occur, and which may happen to interfere with the welfare of the people of the different States.

The Department of Agriculture.

THE Secretary of Agriculture is charged with the supervision of all public business relating to the agricultural industry. He directs the management of all the divisions and sections and the bureaus embraced in the Department. He exercises advisory supervision over the agricultural experiment stations deriving support from the National Treasury, and has control of the quarantine stations for cattle.

The Chief of the Weather Bureau has charge of the forecasting of weather; the issue of storm warnings; the display of weather and flood signals; the gauging and reporting of rivers; the maintenance and operation of sea-coast telegraph lines, and the collection and transmission of marine intelligence for the benefit of commerce and navigation; the reporting of temperature and rainfall conditions; the display of frost and cold-wave signals; the distribution of meteorological information and the taking of such meteorological observations as may be necessary to establish and record the climatic conditions of the United States, or as are essential for the proper execution of the foregoing duties.

The Bureau of Animal Industry makes investigations as to the existence of dangerous communicable diseases of live stock, superintends the measures for their extirpation, makes original investigations as to the nature and prevention of such diseases, and reports on the condition and means of improving the animal industries of the country. It also has charge of the inspection of import and export animals, of the inspection of vessels for the transportation of export cattle, and of the quarantine stations for imported neat cattle; supervises the interstate movement of cattle, and inspects live stock and their products slaughtered for food consumption.

The Statistician collects information as to the condition, prospects and harvests of the principal crops, and of the numbers and status of farm animals, and obtains similar information from European countries monthly. He records statistics of agricultural production, distribution and consumption, and publishes a monthly bulletin for the use of editors and writers, and for the information of producers and consumers, and for their protection against combination and extortion in the handling of the products of agriculture.

The Chemist makes analyses of natural fertilizers, vegetable products and other materials which pertain to the interests of agriculture. Applications are constantly made from all portions of the country for the analysis of soils, minerals, liquids and manures.

The Office of Experiment Stations represents the Department in its relations to the agricultural experiment stations in the several States and Territories. Its object is to promote uniformity of methods in the work of the stations, and, in general, to furnish to them such advice and assistance as will best promote the purposes for which they were established. To this end, it indicates lines of inquiry, aids the stations in the conduct of co-operative experiments, helps to make available to them the processes and results of experimental inquiry in the United States and abroad, and compiles, edits and publishes accounts of station investigations.

The Entomologist disseminates information regarding insects injurious to vegetation; investigates insects sent him in order to give appropriate remedies, and arranges specimens for illustrative and museum purposes.

The Ornithological Division investigates the economic relations of birds and mammals, and recommends measures for the preservation of beneficial and destruction of injurious species.

The Division of Forestry is occupied with investigations dealing with the subject of forestry; with the distribution of seeds of valuable trees, and with the dissemination of information upon forestry matters.



THE DEPARTMENT OF AGRICULTURE.

The Botanist investigates plants and grasses of agricultural value or of injurious character, and answers inquiries relating to the same; also has charge of the Herbarium, receives botanical contributions and purchases for its improvement, and distributes duplicate specimens to agricultural colleges and educational institutions.

The Pomologist distributes information in regard to the pomological industry; investigates the habits and qualities of fruits, their adaptability to various soils and climates and conditions of culture, and introduces new fruits from foreign countries.

The Division of Vegetable Pathology investigates the diseases of plants, and seeks to determine remedies for their prevention.

The Microscopist makes investigations relating to parasitic growths, to the characteristics of fibers, and to the adulteration of foods.

The Division of Records and Editing exercises supervision of the Department printing; issues press notices of interest to agriculturists, and distributes synopses of Department publications.

The Division of Illustration and Engraving comprises the artists and engravers engaged in preparing illustrations for the Department publications.

The Seed Division collects new and valuable seeds and plants for propagation and distributes them to applicants in all parts of the country.

The Division of Gardens and Grounds is charged with the care of the park surrounding the Department buildings, and with the duties connected with the conservatories and gardens for testing and propagating exotic and economic plants.

Secretary of Agriculture.

Jeremiah M. Rusk, Wisconsin..... 1889

THE ATTORNEY-GENERAL.

THE ATTORNEY-GENERAL of the United States has charge of the Department of Justice. The officers under him are the Solicitor-General, three Assistant Attorneys-General, a Solicitor of the Treasury, a Solicitor of Internal Revenue, a Naval Solicitor and an Examiner of Claims for the Department of State, all of whom are appointed by the President and hold office for four years.

Whenever required by the President, it is the duty of the Attorney-General to give his advice and opinion on questions of law. He must decide on the validity of the land-title to any property where the Government proposes to erect buildings.

He must give his opinion on any question of law arising in any of the Executive Departments, when called upon by the head of such Department.

He superintends the District Attorneys and Marshals of the United States, and may employ other counsel to aid District Attorneys in their duties. He may send the Solicitor-General or any officer of his Department to any State or district of the United States, to attend to the interests of the Government in any Federal or State court. He has supervision of the accounts of District Attorneys, Marshals, Clerks and other officers of the United States courts. He signs all requisitions for the payment of moneys appropriated for the use of his Department.

He reports to Congress annually a full account of the business of his Department during the year, the expenses of the Federal courts, number of pending suits, number of additional counsel and attorneys employed, statistics of crime, etc. The approval of the Attorney-General is necessary to make the opinions of his subordinates valid.

All questions of law referred to him he may submit to his subordinates for examination and opinion, except such questions as involve a construction of the Constitution of the United States.

The officers of this Department assist in performing all legal service required for the other Departments, in prosecuting or defending Government claims and suits. The traveling expenses of the officers of this Department when on duty are paid in addition to their salaries.

Attorneys-General.

Edmund Randolph, Va.	1789	Isaac Toucey, Conn.	1848
William Bradford, Penn	1794	Reverdy Johnson, Md.	1849
Charles Lee, Va.	1795	John J. Crittenden, Ky.	1850
Levi Lincoln, Mass.	1801	Caleb Cushing, Mass.	1853
Robert Smith, Md.	1805	Jeremiah S. Black, Penn.	1857
John Breckenridge, Ky.	1805	Edwin M. Stanton, Penn.	1860
Cæsar A. Rodney, Del.	1807	Edward Bates, Mo.	1861
William Pinkney, Md.	1811	James Speed, Ky.	1864
Richard Rush, Penn.	1814	Henry Stanbery, Ohio.	1866
William Wirt, Va.	1817	William M. Evarts.	1868
John M. Berrien, Ga	1829	E. Rockwood Hoar.	1869
Roger B. Taney, Md.	1831	Amos T. Ackerman.	1870
Benjamin T. Butler, N. Y.	1834	George H. Williams.	1871
Felix Grundy, Tenn.	1838	Edwards Pierpont.	1875
Henry D. Gilpin, Penn.	1840	Alphonso Taft.	1876
John J. Crittenden, Ky.	1841	Charles Devens.	1877
Hugh S. Legare, S. C.	1841	Wayne MacVeagh.	1881
John Nelson, Md.	1844	Benjamin H. Brewster.	1881
John Y. Mason, Va.	1845	A. H. Garland. Ark.	1885
Nathan Clifford, Me.	1846	W. H. H. Miller, Ind.	1889

THE SUPREME COURT.

"The judicial power of the United States shall be vested in one Supreme Court, and in such inferior courts as the Congress may from time to time ordain and establish."—*Constitution.*

JUDGES both of the Supreme and inferior courts hold office during good behavior, and there can be no decrease in the compensation they receive during their continuance in office. The power of the judiciary extends to all cases in law and equity arising under the Constitution, the laws of the United States, and all treaties with foreign countries.

The Supreme Court of the United States consists of a Chief Justice and eight Associate Justices, appointed by the President.

Precedence of the Associate Justices is according to the dates of their commissions. Should the commissions of two or more bear the same date, precedence will be according to their age.

Should a vacancy occur in the office of Chief Justice, his duties devolve upon the Associate Justice who is first in precedence.

If one of these Judges, after having held office for ten years, being then seventy years of age, resigns, he will receive for the remainder of his life the same compensation as he did whilst a member of the court.

Any six of the Justices form a quorum.

The Supreme Court appoints a clerk, a marshal and a reporter.

THE CLERK is under the same oath, restrictions and bond as the clerks in the United States District Courts. Deputy clerks when needed may be appointed and removed by the court.

THE MARSHAL is required to attend the court at its sessions, to serve and execute all processes and orders issuing from it, or made by the Chief or Associate Justices, in pursuance of law, and to take charge of all property of the United States used by the court or its members. He may, subject to the approval of the Chief Justice, appoint assistants and messengers to attend court, with the same allowance of compensation as is received by similar officers in the Lower House of Congress.

THE REPORTER of the Supreme Court must print and publish the decisions of the court within eight months after they are made, and every subsequent year he must issue a similar volume. He receives for his first volume $2,500, and for each of the succeeding ones $1,500. They must be completed at the prescribed time.

ANNUALLY, beginning on the second Monday in October, the Supreme Court holds its session. Adjourned or special terms are held when necessary.

The jurisdiction of the Supreme Court is pointed out by the Constitution, and need not be repeated here. In action at law against citizens of the United States, trials of issues of fact are always by jury.

Federal Courts.

Supreme Court	Chief Justice, Eight Associate Justices.	Clerk, Marshal, Reporter.	Attorney-General, Solicitor-General.
9 Circuit Courts	The 9 Justices of Supreme, and 9 Circuit Judges.	Clerks, District Marshals.	District Attorneys.
55 District Courts	55 Judges	Clerks, Marshals, Grand Juries	District Attorneys.

Juries are called in all courts when requisite.

Districts.

The United States are divided into fifty-five Federal judicial districts. A Judge is appointed for each district by the President. Each Judge must reside in the district for which he is appointed. All the records of the court are kept at the place where the District Court is held.

THE LEGISLATIVE DEPARTMENT.

Duties of the American Congress.

ALTHOUGH the duties and responsibilities of the American Congress are very plainly laid down in the Constitution, a further examination of the functions of the Legislative Department cannot but be of interest. Congress is divided into the Senate and the House of Representatives, a division which was made because our Government was founded upon the model of England, whose Parliament consists of a House of Peers and a House of Commons. The Senate is supposed to play the same part in American legislation which the House of Peers does in Britain. It is a sort of governor in the machinery of the body politic, which exerts a conservative and prudent influence on law-making. The Senate originally, although that meaning has been largely neglected, meant the conclave of the sovereign States of the Union, a council which was to look more closely after the general and external affairs of the confederacy, while the House of Representatives was to represent the people of the whole Union. This meaning, it has been said above, has been largely lost in the course of time, but the fiction remains, and the division of the powers of Government between the two bodies illustrates the purpose which the fathers of the Government had in the original separation into two Houses.

The Senate.

The Senate consists of two Senators from each State of the Federal Union; these Senators are chosen by the Legislatures of the respective States and hold office for six years. There was a strong effort made at the time of the drafting of the Constitution to extend the term for life, but this was believed to savor too much of aristocracy, and after long debate six years was agreed upon as a compromise measure. The pay of Senators is $5,000 per year. The Senate is presided over by the Vice-President, and when he has for any cause vacated his office a President *pro tempore* of the Senate is elected. There are now (1892) eighty-eight Senators. All impeachments are tried by the Senate, and when the President of the United States is on trial the Chief Justice of the Supreme Court must preside. The Senate must approve of treaties made with foreign governments by the President before they can become binding, and the consent of the Senate is necessary to the appointments to all the great offices of the State made by the President. The Senate is the only permanent body in the United States Government, the elections being always so ordered that two-thirds of the Senators hold over.

The House of Representatives.

In the early days of the Federal Union the only legislative body was the Continental Congress, which exercised both the executive and legislative functions of government, and which occasionally performed judicial duties also. The old Congress piloted the nation through the Revolutionary war, but, although effective for its original purpose, it was not able for the work which fell upon its shoulders under the articles of confederation. The articles themselves were unsuited to the land, and in a little while it became evident that the United States experiment would end in disaster and disappointment unless something was done to give it shape and direction.

The man that had led the Continental Army to glory and freedom through the Revolution again came forward and preserved by his wise statesmanship the Republic which his military genius had founded. At the call of George Washington the American Constitution was born, and the keystone of the Constitution is the House of Representatives. This body is the brain of the nation; on its floor all the momentous issues of the Republic have been settled; no higher office can a citizen win than a seat in the council of the Nation, none greater in the influence which it wields, not for America alone, but for the future of the human race.

The number of Representatives is decided by the census, which is taken every ten years. As soon as this is done, Congress decides upon the number of Representatives for the ensuing decade. The number since the establishment of the Constitution has been as follows:

1789 — 1793,	65	1843 — 1853,	223
1793 — 1803,	105	1853 — 1863,	237
1803 — 1813,	149	1863 — 1873,	243
1813 — 1823,	189	1873 — 1883,	293
1823 — 1833,	213	1883 — 1893,	325
1833 — 1843,	240	1893 — 1903,	356

These Congressmen are paid $5,000 a year, with certain additions in the shape of mileage, stationery, etc., etc. The qualifications for a Representative are fully explained in the Constitution.

PHYSIOLOGY AND MEDICINE.

The various Ailments of the Human Body, and How to Treat Them.

THE mechanism to be studied in the body of a living animal—more particularly the highest of all animals, man—is of such wonder and beauty, exquisite finish and perfection, that, could it all be comprehended and long enough retained by the memory to afford one broad contemplation of its simplest facts, all the triumphs of art could bear no relation to its loveliness.

Huxley so concisely and clearly begins his delightful little volume of *Elementary Physiology*, that for the purposes of this article we cannot do better than to quote his opening lines. "The body of a living man," he says, "performs a great diversity of actions, some of which are quite obvious, others require more or less careful observation, and yet others can be detected only by the most delicate appliances of science.

"Thus some part of the body of a living man is plainly always in motion. Even in sleep, when the limbs, head and eyelids may be still, the incessant rise and fall of the chest continues to remind us that we are viewing slumber and not death.

"More careful observation is needed, however, to detect the motion of the heart, or the pulsation of the arteries, or the changes in the size of the pupil of the eye with varying light, or to ascertain that the air which is breathed out of the body is hotter and damper than that which is taken in by breathing.

"And lastly, when we try to ascertain what happens in the eye when that organ is adjusted to different distances, or what in a nerve when it is excited; or of what materials flesh and blood are made; or in virtue of what mechanism it is that a sudden pain makes one start—we have to call into operation all the methods of inductive and deductive logic, all the resources of physics and chemistry, and all of the delicacies of the art of experiment."

It is plainly obvious that man differs from the stones and earth, the flowers and trees, and all inanimate objects. He is warm, while these things are cold; he is able to move about at will while they must remain always in one place; he can exert power and force, while they must remain forever inactive; he is possessed of mind and purpose to guide him, while they are influenced only by the elements.

Combustion and Heat.

Now warmth is clearly due to the burning of something. The warmth of the day and the heat of the summer come to us from that great central fire, the sun, whose flames leap up from its surface tens of thousands of miles. The warm breezes at night, when the sun does not shine upon us, and the temperate winds which from time to time visit us in winter, all gain their warmth from some great tract of southern land or tropical body of water, which, previously heated by the fires of the sun, now radiates the heat absorbed therefrom, warming the surrounding atmosphere, which, moving in currents, carries heat from the tropics even to the very poles.

When the sun's heat is not sufficient for our purpose, we make artificial fires of wood, coal, oil or gas. There is no heat or warmth, however slight, that is not produced by *combustion*, or *oxidation*, or, in other words, the *burning* of something. But all things do not *oxidize* or *burn* with a flame, as in the case of our furnace fires. You every day see objects burn without coming to a blaze, but only with the red glow of a live coal. Other things you see burn and crumble to ashes which never even come to a glow. If you hold over a lamp, and at a little distance from it, a piece of writing-paper, it will burn black and finally crumble in ashes without showing a single spark of fire or light, and yet it so rapidly burns that it crumbles to pieces in the space of only a few moments. The character or appearance of combustion or oxidation depends entirely upon the rapidity with which the article is burned. Thus, some objects burn with an *explosion*, some with a *flame*, some with a *glow*, while some show only a simple evolution of heat. Gun-

powder so quickly burns that great force is exerted, though we see but a single flash of light. Dry pine burns far more slowly; the force of its heat is distributed over a greater length of time, and hence there is no disastrous explosion, though it burns with a roaring flame. Peat burns still more slowly, and with the glow of a live coal. In the slaking of fresh lime an *oxidation* or *burning* takes place, and great heat is given off, but there is no flame, no glow, no spark of light. A thousand things burn still more slowly, some of them requiring years or centuries, under certain conditions, in oxidation, and, while constantly giving off heat, the burning is so slow and the amount of heat given off therefore so exceedingly small, that it is not detectable except by the most delicate instruments of science.

If combustion takes place almost instantly, as in the case of dynamite, or gunpowder, or certain gases, we call the result *explosion*. If it goes on more slowly, as with wood, coal or peat, we call the process *burning*. If combustion takes place still more slowly, as in slacking lime, or in a bin of wheat or barley, where heat is given off, but without a spark of fire or light visible, we commonly call the process oxidation. Thus, you see, the words *explosion*, *combustion*, *burning* and *oxidation* mean practically one and the same thing, and that all force, or heat, or warmth, comes from the *oxidation* or burning of something, either rapidly or slowly, visibly or invisibly.

"If a mass of seeds be laid together," says Draper, "as barley in the making of malt, the operation conducted at a gentle temperature, and with the access of atmospheric air, oxygen disappears, carbonic acid is set free, and the temperature rises forty or fifty degrees. A process of *oxidation* must, therefore, have been carried into effect, and to it we trace the heat disengaged; for carbon cannot produce carbonic acid without a rise of temperature ensuing. The loss of weight which the seed exhibits is therefore due to its loss of carbon, and the whole effect is explained in the statement that atmospheric air has united with a portion of the carbon contained in the seed, producing carbonic acid gas and an evolution of heat."

If we put a lighted candle into a glass jar and seal it up air-tight, it will continue to burn for a certain time, the duration of which will depend upon the size of the jar; the flame will grow less and less, until finally it will go out, and the candle will cease to burn. As soon as the air in the jar has cooled a little, drops of moisture will collect on the inside of the jar, showing that in burning the candle has given off water. If we now open the jar and test the temperature with a thermometer, we find the air of the jar warmer than when the candle was put into it, showing that in burning heat was given off. If we now force some of the air of the jar through lime water, the water becomes milky from the precipitate of carbonate of lime, showing the presence of *carbonic acid* in the air of the jar, which was not present before the burning of the candle—showing that in the burning *carbonic acid* was given off. If a further analysis be made it will be discovered that the oxygen of the air in the jar has disappeared, and if the candle be weighed, it will be found to have lost weight.

Such is the result of all combustion or oxidation—*heat* is given off, *water* and *carbonic acid* are evolved, *oxygen* is consumed, and the burning object *loses substance.*

Oxidation and Animal Heat.

If, in winter, we place a healthy living man in a cold, dry room with closed glass windows, having carefully noted the temperature of the room and the exact weight of the man, and shut him in as we did the burning candle in the glass jar, and then require him to walk up and down for an hour, the same important facts may be observed as in the case of the candle. In his exercise he will have obviously exerted a great amount of mechanical force—as much at least as would be required to lift his own weight as high and as often as he has raised himself at every step, which, in the aggregate, would be about a mile or more above the ground. At the end of an hour let the temperature of the room again be taken, and it will be found to be warmer than at the beginning. The man has, therefore, given off heat. If the windows of the room be observed, the glass will be found covered with the vapor of water, which, if the air outside be sufficiently cold, will be converted into ice or frost, such as is seen in the morning upon the window-panes of our sleeping-rooms in winter—showing that he has given off water. If some of the air in the room be now forced through lime water, the water will be found milky from the precipitate of carbonate of lime, showing the presence of carbonic acid in the air, which, like the heat and the water, has been given off by the man, just as we have seen that heat, water and carbonic acid are given off by a burning candle.

And so, if the air of the room be further analyzed, a large amount of oxygen will be found to have disappeared. The flame of the candle died and the light went out when all the oxygen in the jar had been consumed; so would the fires of life in the man likewise have died out had he not been released before all the oxygen in the closed room had been breathed into his lungs and consumed. Furthermore, if the man be now again weighed at the end of the hour, he will be found to have lost weight just as the candle lost weight in burning and the barley in oxidation. Thus, in the concise language of Huxley: "A living, active man constantly exerts *mechanical force*, gives off *heat*, evolves *carbonic acid* and *water*, and undergoes a *loss of substance.*" In other words, his tissues are constantly burning up, or *oxidizing*, and when this process ceases he grows cold and dies. Oxidation of the candle is started by applying a flame to the wick. Once begun, it needs no further aid. The oxygen of the air unites with the carbon of the candle, and the evolution of heat, carbonic acid gas and water in the form of vapor is the result, and the process continues until the candle is consumed or the supply of oxygen shut off.

As we have seen, a man, like the lighted candle, is constantly burning up, or oxidizing—giving off heat and water and carbonic acid, and the ashes of his burned tissues. He loses every day 300 grains of nitrogen (which is the ashes of his muscles), six and a half pounds of water, and burns ten and a half ounces of carbon. Altogether he loses from seven to ten pounds in weight daily. It is clear that this state of things could not continue very many days or the man would dwindle to nothingness. He would last but a few days longer than his candle. But long before this loss of substance can be noticed by another it is felt by the subject, who suffers from hunger and thirst. He takes food and drink, which being digested and made into blood, his wasted tissues are repaired, and the loss by oxidation

is made good. A man may be likened to a lamp that is ceaselessly fed and as ceaselessly wastes away. Or he may be likened to a steam engine. The food which he takes, digests, assimilates and burns, corresponds to the coal which is burned in the furnace of the machine; his warmth and life and strength correspond to the heat and power of the engine. The warmth and strength of the man and the heat and power of the engine are due to the fuel burned in the tissues of the one and the furnace of the other.

Power and Life Due to Heat.

All force, of whatever kind, is due to heat. A large part of the machinery of the world is run by steam power, which is produced by heat. The winds are caused by the heated tracts of land or bodies of water, where the atmosphere in consequence becomes rarified, and currents of colder air rush across the face of the earth with gentle, or sometimes terrific force, to fill the vacuum. All the force of the stream and the waterfall is due to heat, which evaporates the water of the sea, and, lifting it up in vapor, carries it in the warm breezes back to the high land, where, cooling, it falls in rain and rushes with force through gulleys and the river-beds back to the sea. In like manner heat is the cause of power in animals and men. Food is the fuel; the entire body is the furnace; through the lungs is the draft of air. Oxidation and heat and life and power and force are the result.

But the fuel proper for the steam engine is wholly unsuitable for this human engine. To enable the body to continue exerting force and giving out heat, water and carbonic acid at the same rate, for an indefinite period, it is absolutely necessary that the body should be supplied with three things, and with three only. These are fresh air, water and food. Mr. Huxley says: "In a properly nourished man a stream of food is constantly entering the body in the shape of complex compounds containing comparatively little oxygen; as constantly the elements of the food (whether before or after they have formed a part of the living substance) are leaving the body combined with more oxygen. And the incessant breaking down and oxidation of the complex compounds which enter the body are definitely proportioned to the amount of force which the body exerts, whether in the shape of heat or otherwise. Let a man lift a heavy body from the ground, and the loss of weight which he would have undergone without that exertion will be immediately increased by a definite amount, which cannot be made good unless a proportionate amount of extra food be supplied him; just in the same way as the amount of work to be gotten out of a steam engine and the amount of heat it and its furnace give off bear a strict proportion to its consumption of fuel."

In every instance the production of animal heat and force is due to oxidation taking place in the economy. This oxidation takes place in the blood, and in the tissues themselves in every part of the body. The food, which is the fuel of this human engine, before it can reach the tissues where it is burned, must undergo elaborate preparation.

THE DIGESTIVE ORGANS.

There are a large number of organs whose sole use is the preparation and elaboration of the food, rendering it suitable for cousumption by the economy. These organs, taken together, are known as the *digestive organs*. They consist of machinery for dividing and grinding the food and testing its quality; of glands for the manufacture of chemical fluids for dissolving it; of receptacles for holding and warming it while it is acted upon by the dissolving fluids; of canals through which it is passed from one receptacle to another; of absorbents which take up and carry the refined product into the current of the blood, and of a further tube to carry out of the body the insoluble and unsuitable constituents of the mass taken into the stomach. These organs are the *mouth*, *tongue*, *palate*, *teeth*, *salivary glands*, *pharynx*, *œsophagus*, *stomach*, *small intestines*, *large intestines*, the *liver*, and the *pancreas*, or *sweetbread*.

PHYSIOLOGY OF THE DIGESTIVE ORGANS.

The Mouth.

The mouth is the cavity into which food is first introduced. It is supplied with organs for testing the quality of the food; with organs for dividing and grinding, and with a fluid for moistening and softening, and for converting the insoluble starch of the food into a soluble sugar. It has a fixed roof, formed by what is known as the *hard palate* (3), and with a movable floor made up of the tongue and the lower jaw. Around the sides and front of the mouth are two rows of sixteen teeth each, which spring from the upper and lower jaws, and outside of these the cavity is closed at the sides by the cheeks, and in front by the lips. When the mouth is closed the tongue comes in close contact with the roof (3), and back of the hard palate the communication with the nasal cavity and the pharynx is further impeded by a curtain of flesh, the *soft palate*, in the middle of which, at the extreme back part of the cavity of the mouth, is a small prolongation or teat of flesh, the *uvula* (4). On each side are double muscular cords (5 and 6), which are known as *pillars of the fauces*, and between these on each side are the tonsils (7). At the back part of the base of the tongue is a lid, the *epiglotis* (9), made of *cartilage*, or gristle, which closes the entrance to the trachea (12). Behind the uvula and the epiglotis is the cavity of the *pharynx* (8 and 11), which has walls of muscles and covered with mucous membrane. It is larger at the top than at the bottom and has seven openings into it: two from the back part of the nasal cavity; two (one on each side) above and close to these—the openings of the *eustachian* tube (2), leading to the ears; one from the back part of the cavity of the mouth (8); one from the *trachea* (12) or windpipe, and one leading into the *œsophagus* (11) or gullet. The whole cavity of the mouth and the *pharynx* (as well as the entire *alimentary tract*, which includes the *gullet*, *stomach* and *intes-*

tines) is lined by a delicate membrane, known as the *mucous membrane*. It commences on the lips where it joins the skin; it is red and moist and soft and tender; its structure is like that of the skin, only more delicate and more easily wounded. It is full of minute little glands which secrete a fluid known as mucus, and which keep the membrane moist. Besides these little mucous glands there are three pairs of large glands which secrete three different kinds of fluid, known as *saliva*, and the glands as *salivary glands*. These glands are named according to their situation: the *sub-lingual*, under the tongue; the *sub-maxillary*, under and to the inside of the lower jaw. The saliva secreted by these two pairs of glands is emptied into the mouth through a small duct under the tip of the tongue. The *parotid* gland lies in front of the ear, and its duct opens into the mouth on the inside of the cheek opposite the second upper double tooth.

The Teeth.

Each of the thirty-two teeth has a *crown*, a *pulp*, and one or more roots or *fangs*, which are received into sockets in the jaw-bone. The teeth are composed of ivory, an enamel and a cement which securely fastens them in their sockets.

Every person who lives to adult life is given two sets of teeth. The first set, consisting of twenty teeth (ten above and ten below), are known as the *temporary* set, and the last, consisting of thirty-two (sixteen above and sixteen below), are known as the *permanent* set.

After these, now-a-day, a person can have as many additional sets of teeth as he can pay for.

The four teeth in each jaw which are directly in front have sharp, chisel-like edges, and are known as the *incisors*, or cutting teeth. Next these on each side is a long, round-cornered and sharp tooth, something like the tooth of the dog, and hence known as the *canine* or tearing tooth. The next two teeth on each side have two prominent points or *cusps* on the surface of the crown, and are therefore called *bi-cuspids*. All of these have generally but a single root or fang. The remaining twelve teeth have two or more roots and broad, heavy crowns, and are known as *molars* or grinding teeth. (See Fig. 2.)

Each tooth is supplied with blood-vessels and a nerve, which enter, to pass into the pulp, at the root of the tooth, as shown by the illustration.

When solid food is first taken into the mouth, it is first submitted to division and grinding by the teeth. It is kept between the teeth by the muscles of the cheeks on the outside, and by the tongue from the inside. When the teeth are closed together the food is pressed out on either side, but is immediately replaced by the action of these muscles, and this is continued until the entire mass is thoroughly rubbed down. During this process the salivary glands have been excited and have poured into the mouth their fluids, which have become incorporated with the food, while the glairy mucus from the mouth coats the bolus of food thus prepared for the action of the stomach. By the action of the tongue the bolus is forced backward into the pharynx, the soft palate and valve preventing its passage upwards into the back part of the nasal cavity, while the epiglotis closes down securely over the entrance into the wind-pipe, and, the muscles of the pharynx contracting upon the bolus, the movement or act of swallowing is performed. The bolus glides over the epiglotis and is then carried through the œsophagus, or gullet, into the stomach, where it is digested.

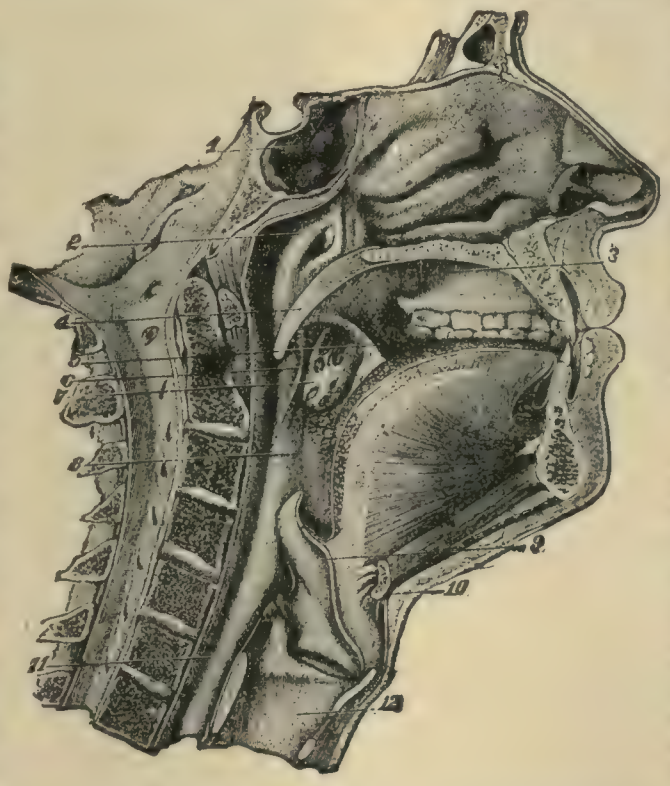


Fig. 1.

2, Opening of the eustachian tube; 3, hard palate; 4, soft palate; 5 and 6, pillows of the fauces; 7, tonsil; 8 and 11, pharynx; 9, epiglotis; 12, larynx.

The Stomach.

The stomach (see Fig. 3) is the principal organ of digestion. It lies immediately below the diaphragm in the cavity of the abdomen, being separated from the heart and lungs above by the diaphragm, and lies more upon the right side of the body than the left. It is a muscular pouch, being, when moderately full, about twelve inches long by four inches deep. It is covered on the outside by a delicate, smooth membrane, which covers also the intestines and lines the entire cavity of the abdomen. This membrane secretes a small amount of fluid in health, sufficient to so lubricate its surfaces that the organs may glide over each other without injury. The stomach is lined by the mucous membrane, spoken of previously as lining the entire alimentary tract. This membrane in the stomach is thick, smooth, soft and velvety. When the stomach is empty it lies in folds, or *rugæ*. When the stomach is full these folds are

obliterated. When the mucous membrane of the stomach is examined by a magnifying-glass, it presents a peculiar honey-combed appearance, which is due to the opening of the ducts from little glands situated in and beneath the membrane. These glands secrete an acid fluid known as the *gastric juice*, and a certain substance known as *pepsin*, which, together, have the power to dissolve a certain class of foods known as *proteids*, presently to be described. The stomach has two openings, one by which food is received from the gullet, or *œsophagus*, and called the cardiac orifice; the other by which the contents of the stomach are passed into the small intestine, and known as the pyloric orifice, which is guarded by a kind of valve—the *pylorus*.

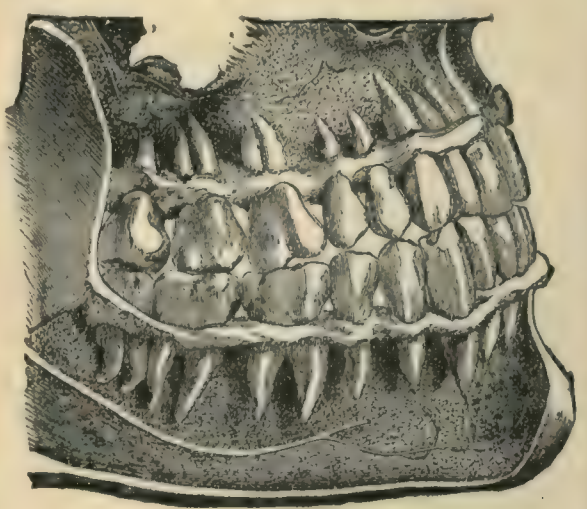


Fig. 2.

The Intestines.

The intestines form one long convoluted tube with muscular and mucous coats like the stomach, lie wholly within the abdominal cavity, and are enveloped by the peritoneum. They are divided into the *small intestines* and the *large intestines*, the latter having a far greater diameter than the former. The small intestine is about twenty feet long and divided into the *duodenum*, the *jejunum* and the *ilium*. The lining mucous membrane is thick, velvety, and full of blood vessels. It is thrown into transverse folds, which are about two inches long, and half an inch in depth in their broadest place, and are called *valvulæ conniventes*. These folds are covered by a net-work or tufts of capillary and lacteal vessels known as *villi*. These are very numerous—the number in the whole length of the intestines being estimated at four millions. In the upper part of the duodenum empties the duct from the pancreas and the bile duct from the liver, both of which organs secrete a digestive fluid which, being poured into the duodenum, completes the solution of the food received from the stomach.

The large intestine extends from the termination of the small intestine to the outlet. It is about five feet in length. It differs from the small intestine in its greater size, more fixed position and its sacculated form. It is divided into the *cæcum*, the *colon* and the *rectum*. The cæcum is a dilated pouch, into which the ilium empties. It is situated on the right side of the body in the lower part of the abdominal cavity. Continuous with this rises the colon. It passes upward on the right side of the body, until it reaches the under surface of the liver, when it crosses transversely to the left side of the body, and then descends. It is lined by mucous membrane, but its structure is not of sufficient importance to demand attention here.

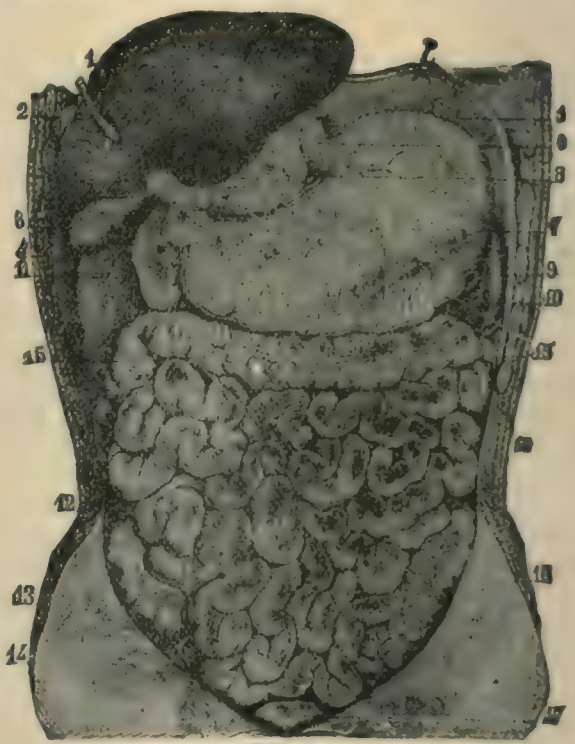


Fig. 3.

1, 4, Liver; 2, ligament of liver; 3, gall-bladder; 5, diaphragm; 6, lower end of the œsophagus; 7, stomach; 8, 10, omentum; 9, spleen; 11, duodenum; 12, 12, small intestine; 13, cæcum; 14, ensiform appendix; 15, 15, transverse colon; 16, descending colon; 17, urinary bladder.

The Liver.

The liver is the largest gland in the body, weighing from three to four pounds. It belongs to the digestive apparatus, its function being chiefly the secretion of bile; still it undoubtedly effects important changes in the blood during its passage through the gland. It is placed in the abdominal cavity, on the right side of the body, on a level with the lower ribs. Its upper surface is in contact with the diaphragm, which separates the liver from the right lung. It measures, from side to side, ten to eleven inches; from before backwards, six to seven inches, and is about three inches thick in its thickest part. It is held in place by strong ligaments, and is covered by the same serous membrane, the *peritoneum*, which covers the stomach and other abdominal organs. The liver is made up of *hepatic* or liver cells, whose function it is to secrete the bile, and of a substance known as *glycogen*, which will be spoken of again. The *bile* or gall is a compound fluid of golden yellow color, and very

bitter in taste, and the total quantity secreted in twenty-four hours is probably not less than two or three pounds. It is both a *secretion*, *i.e.*, an essential digestive fluid, and an *excretion*, *i.e.*, contains elements of waste—the ashes, so to speak, of oxidized tissues, which, being emptied into the intestines, are carried out of the body.

The Pancreas.

The pancreas is very similar in structure to the salivary glands. It is placed in the abdominal cavity beneath the stomach, and extends from the duodenum on the right to the spleen on the left. The pancreas is oblong in shape, and larger at one end than the other. The larger end, known as the *head*, is in contact with the duodenum, gently tapering to the left as it approaches the spleen, into what is called the *tail*. The entire gland is about six or seven inches long, an inch and a half broad, and three-quarters of an inch thick, and averages three ounces in weight. The pancreas secretes a digestive fluid very similar to the saliva, which empties into the duodenum through an orifice in common with the bile from the gall-bladder.

The Process of Digestion.

When the stomach is empty the lining membrane is pale, the blood-vessels contracted, and the stomach glands secreting scarcely more than enough fluid to moisten the surface. As soon, however, as food is taken into the stomach, the nerves of the part are stimulated to activity, the blood-vessels dilate, the mucous membrane becomes red, and little drops of fluid begin to appear at the mouths of a thousand little glands and run down as gastric juice. The presence of food in the stomach sets up a contraction of its walls, which rolls the food about, not unlike cream in a churn, until the digestive or dissolving fluid becomes thoroughly incorporated with the food. We have seen that saliva has the power of acting upon starchy foods, converting the starch into sugar, but has no power to dissolve that class of foods essential to life and known as vital food-stuffs—*proteids*. Among the proteids may be mentioned the *gluten*, *albumen*, *fibrin*, *syntonin*, *casein*, etc., which are the chief food constituents of bread, eggs, meat, cheese and milk. Now the gastric juice has the power of dissolving these articles of food at the temperature of about 100 degrees, or that to which the food is raised in the stomach. The motion of the food in the stomach has no other value than to thoroughly mix it with the digestive fluid. When the *proteids*, whether from meat, or bread, or eggs, or cheese, are dissolved, we have a substance known as *peptones*. Peptones are readily absorbed and taken into the current of the blood. Still there are many articles of food that are not dissolved in the stomach. As soon as the starch-foods, or *amyloids*, become incorporated with acid fluid of the stomach, the solution which has begun by the alkaline saliva ceases, and these starchy foods pass out of the stomach unchanged. The fats, too, are not digested in the stomach; neither is the solution of *proteids*—bread, meat, cheese, etc.—completed in the stomach. A large part of the *peptones* are absorbed by the stomach and taken into the current of the blood. The remaining contents, the starches, fats, and half-dissolved *proteids*, are permitted slowly to flow out of the stomach through the pyloric orifice into the *duodenum*. Here it mixes with the bile from the liver, which has been saved up in a little reservoir, the *gall-bladder*, for this purpose, and with the fluid from the pancreas, and with the juice from the intestinal glands, which together have the power of digesting the starchy foods, breaking up the fats into an *emulsion* (or held in suspension, as butter is in new milk before it is churned) and completing the solution of the *proteids*, so that here all the starch of the vegetables we eat is converted into a peculiar sugar known as grape sugar; all the butter, fats and oils made into an emulsion; all the *gluten*, and *syntonin*, and *casein*, and *albumen* of the bread, and meat, and milk, and cheese, and eggs which we eat is converted into *peptones*. Now this *grape sugar*, and the *emulsions*, and the *peptones*, are very readily absorbed by the millions of *villi*, or the velvety little tufts of blood-vessels and lacteals which cover the folds on the intestinal mucous membrane. Those parts of the food unfit for the use of the body, or which are not needed, are passed along into the large intestine, and finally carried out of the body.

DISEASES OF THE DIGESTIVE ORGANS.

We have seen how perfect is the machinery for the elaboration of our food, and the many processes through which it goes, by which it is rendered fit to be taken into the current of the blood to rebuild the wonderful organs of man's mechanism and to restore the tissues which have been burned up in the production of power necessary in work, and in the production of animal heat, which is essential to life. More than this, man is supplied with every desirable means of testing the kind and quality of his food before it is introduced into this wonderful laboratory. To digest the stone of a peach would be impossible; such things, taken into the stomach, could not result otherwise than in death. The pit is taken into the hand, or tried between the teeth, and, perceiving its hardness, it is rejected, even by a starving idiot, as unfit for food. Two wonderful faculties is man possessed of necessary to the proper inspection of food—the sense of *smell* and the sense of *taste*. The aroma and flavor of substances fit for food he is made to like; while the odor and taste of substances unfit for food and harmful to the body are made disagreeable, nauseous, or even disgusting to him. Tainted meat, or decomposing eggs, would be most harmful taken into the stomach. Hence, such articles are promptly rejected by the official inspectors—*smell* and *taste*. Certain harmful substances may fail of detection, either by sight, or smell, or taste, or any of the senses a part of whose function is to inspect the food, and therefore, as in the case of certain poisons, be taken into the stomach. But even in the stomach there seems to reside a sense of the fitness of things, and the poison is, by the act of vomiting, immediately rejected. If any part of an offending substance is carried into the duodenum, an action is there immediately set up to hurry it out of the body. Nothing could be more perfect than this system of inspection and elaboration of the food. Nothing further in this direction could be desired, so long as the apparatus of this wonderful laboratory continues in good repair—in other words, so long as the organs remain in health. Every organ and tissue in the body is liable to get out of repair. Whenever any organ fails to do its work or shows any defect, we say it is *diseased*.

Mumps.

PAROTITIS, OR MUMPS, is an inflammation of the parotid gland—that one of the salivary glands which is situated in front of and below the ear. While the swelling and soreness are local, the disease is evidently constitutional. The amount of swelling, soreness and pain varies in different cases. There is usually considerable pain, particularly upon moving the jaw. The swelling may be limited to one side, or both sides may be involved. When both sides are affected, usually one side is invaded a day or two in advance of the other. It is commonly believed to be contagious, although some high authorities deny this. Whether it may be communicated from one person to another or not, it is sometimes, at least, endemic. Persons between 18 and 30 years of age are most susceptible to the disease. It never occurs but once in the same person. The disease is usually trivial and never dangerous. No physician is needed—the popular fear of taking cold is groundless. If the pain is severe, the patient will do well to lie down and keep quiet. Hot fomentations may be applied to the swelling, and twenty drops of laudanum may be taken once in three or four hours to relieve the pain.

Acute Tonsilitis—Quinsy.

QUINSY, or TONSILITIS, is an inflammation of the tonsil. One or both tonsils may be involved. It is a very distressing and painful disease, and swallowing is rendered very difficult by the great swelling of the tonsils, which often apparently quite closes the opening into the pharynx. The affection, however, is not dangerous. It usually ends in an abscess, which breaks upon the inside. There is a predisposition to the disease in some persons, who suffer from repeated attacks. An attack is sometimes caused by exposure to cold. Persons predisposed to the disease should have the tonsils removed, as should be done in all persons with permanently enlarged tonsils. A perfect instrument is made especially for this purpose. The removal of a tonsil is but the work of a moment on the part of the surgeon. The operation is attended with scarcely any pain, the wound is altogether trivial, and a permanent cure is effected and the patient relieved from a constant source of discomfort. During an acute case of tonsilitis, or quinsy, the patient should remain in bed; poultices, or flannels wrung out of hot water, may be applied to the throat; steam may be inhaled, and a gargle of a saturated solution of *chlorate of potassium* in water may be used. In addition, the following prescription will be found of great use:

Quinine, - - - - - -	24 grains.
Morphine, - - - - -	1 grain.

Make six powders. Take one every four hours.

Acute Pharyngitis—Sore Throat—Cold.

ACUTE PHARYNGITIS is an acute inflammation of the mucous membrane of the pharynx, and is one form of a *cold*. On looking into the throat the membrane is found to be red and inflamed. If it extends deep into the pharynx there will be a cough, which is not in any way husky, showing that the larynx is not affected. There is considerable soreness and pain when an attempt is made to swallow, and very often there is a white exudation, both in the throat and on the tonsils, which are usually more or less inflamed. These white points often lead to mistaking the disease for diphtheria. The affection is often attended with considerable fever. The duration of the disease is from five to ten days. The treatment recommended for *quinsy* should be employed.

Chronic Granular Pharyngitis—Clergyman's Sore Throat.

CHRONIC PHARYNGITIS is an inflammation of the mucous membrane of the pharynx of long standing. It frequently exists without the patient making any complaint. There is usually, however, a dry, hacking cough, which is increased by fatigue or mental depression, and the voice frequently becomes hoarse from speaking. It is a disease of middle life, is much more common in men than women, and from the annoyance it occasions clergymen it has received the name of *clergyman's sore throat*. It occurs no more frequently among clergymen than other persons, but, because of the necessity for using the voice, it occasions them more inconvenience. The disease is not dangerous and has no tendency to run into consumption or any other disease. Still it is apt to persist for many years, and is very difficult to cure. The following prescription will do good, and, with proper hygienic care, may produce a cure.

Iodide of potassium, - - -	4 drams.
Bromide of potassium, - - -	1 ounce.
Compound tincture of gentian, -	6 ounces.

Dose.—One teaspoonful in a wine-glass of water three times a day after meals.

The above should be continued for a long time. Quinine in two-grain doses may be taken three times a day. Outdoor exercise should be taken; relaxation from mental labor, together with recreation and good living, will be found of the greatest benefit. If the patient is dyspeptic, particularly, he should abandon the starvation brown-bread diet, and demonstrate his ability to live as other men do, upon a generous diet such as his appetite craves. Let the variety of food taken be as great as possible.

Dyspepsia.

ACUTE DYSPEPSIA—commonly called a *bilious attack*, or *fit of indigestion*—is a disorder of short duration. It begins by a sense of weight and fulness, and of pain in the region of the stomach; nausea and vomiting often occur, and later there may be a diarrhœa. There is generally slight fever and considerable pain in the head.

SICK HEADACHE is an acute dyspepsia, differing from the above only in the more frequent occurrence of vomiting and severe headache. The vomited matters usually contain bile, and the patient is commonly described as *bilious*. The disease is commonly held by physicians to be an affection of the mucous membrane of the stomach, while it is by good authority also claimed to be of nervous origin. Whatever the original cause, acute indigestion is the result, and the evacuation of the stomach and bowels is the way of relief. One or two *compound cathartic pills* may be given after the first occurrence of vomiting. Strict rest in bed must be required. The writer has

found the following prescription, after vomiting has occurred, to be of the utmost service in numerous cases:

Hydrate of chloral,	15 grains.
Sulphate of morphia,	⅛ grain.

Dissolve in a wine-glass of water, and take at one dose. If the patient does not find rest and sleep in one hour, repeat the prescription.

Sometimes it is better to give 20 grains of chloral at the first dose. Often such treatment will afford the patient from five to eight hours' sleep; he then awakes free from headache and nausea. The disease sometimes appears to be hereditary, several members of the same family being subject to frequent attacks. It is a disease of early adult and middle life, usually disappearing after 40 years of age.

DYSPEPSIA—a *chronic* affection—is characterized by distention of the stomach and bowels by gas, and consequent uneasiness and pain, with an oppressive sense of fulness; frequent regurgitations of fluid from the stomach which has either a salty, insipid or acid taste. Sometimes it is acrid and intensely disagreeable. This regurgitation is commonly known as *water-brash*. This condition is not unfrequently attended with a burning, painful sensation at a point where the œsophagus opens into the stomach, extending upward along the course of the œsophagus—a symptom commonly called *heart-burn*. Constipation is also generally present. Vomiting is rare. The gas in the stomach and bowels may be derived in large part from the fermentation of undigested food, but it is certain that in many cases it has its origin in a disordered state of the nervous system. Dyspepsia is attended with depression of spirits. This is greatest when the stomach and bowels are most distended by gas, and is never seen, I believe, unless accompanied by more or less distention. This state of depression, carried beyond a certain point, eventuates in a form of mental aberration known as *hypocondriasis* (vulgarly called *hypo*), or even melancholia. We have in mind a night-watch in a public hospital, who was subject to attacks of rapid accumulation of gas in stomach and bowels, attended with considerable pain. Notwithstanding the frequency of the attacks and the always happy termination within an hour or two, his memory and experience seemed of little use. He always believed that he was within a few minutes of death, and that the Lord had made this special visitation upon him as a punishment for his sins (although he was not noted for this sort of religious faith at other times), which he would proceed to confess, and which were ridiculous trivialities: he had failed to be polite to some one, or he had reported some employe for neglect of duty, or some other equally trivial fault, or even a virtue, which at these times he would distort into a fault. He was no coward, but a brave, courageous and sensible young man. As soon as the pain and distention was relieved, these melancholy delusions appeared as ridiculous to him as to his physician, although the experience was of no possible aid to his reason on the next occasion.

Prof. Austin Flint, of New York, is authority for the statement that "in a large proportion of cases, dyspepsia originates and is perpetuated by mental causes. It is induced and kept up by anxiety and depression. In the first place it is produced by mental causes, and then the dyspepsia reacts upon the mind, increasing its morbid condition. Most cases show the affection to have been preceded by mental inquietude of some sort. Persons who are constantly anxious about something, such as acquiring success in life, getting out of debt, securing independent positions, or imaginary troubles, are those who are prone to the disease. The disease is most frequent from early adult to middle life, during the time when anxieties are greatest."

The Treatment,—The scope of this article will not permit more than to indicate the general character of the treatment to be employed. First, attention should be given to the mind. The patient should be made to understand that his gloomy foreboding regarding his health has no foundation in fact; that his anxiety constitutes his dyspepsia, and that there is not another such a father of "the blues" as "wind on the stomach." Exercise is a good thing, but if ordered to take it at stated times without any other purpose than treatment, it will fail of its best results by keeping the mind of the patient upon himself and his dyspepsia. He should have a change of scene—should go where new objects will engage his attention and take possession of his mind. Nothing is better than foreign travel. Objects of interest engage his mind, and he forgets himself. He finds it impossible to stick to his brown bread and limited variety of foods (which he has had cooked in a particular way for years, perhaps, under the delusion that he could not live if he should dare to go beyond his self-imposed restrictions), for it is not to be obtained. By his exercise and cheerful interest in what is novel to him, he becomes hungry and indulges freely in the variety of table fares which he finds at the various hotels, and he soon learns that he suffers no inconvenience from whatever he chooses to eat, so that often a few months' travel is sufficient to permanently dispel the delusions and cure the most chronic case of years' standing.

There is no more prevalent American fallacy than the notion that one should not sleep soon after eating—the notion that, no matter how hungry one may be, he must not eat before retiring. This notion is not held by any other nation in the world, and how it became so prevalent here, it is difficult to account for. Those people who eat the largest meal at from 7 to 9 o'clock in the evening, and perhaps take a luncheon the last thing before retiring, and who require, consequently, a very light breakfast, are far less frequently attacked by dyspepsia than those who exercise after eating.

As regards diet, the patient should take in sufficient quantities and great variety all kinds of nutritious food. Milk and nice, tender meats of all sorts should particularly be largely eaten. Pastry, sweets and sugars had better be discarded. Ripe fruit is very useful, and generally any article which the appetite craves—roast pork, or oysters, or melons, or even the infamous cucumber, if called for by the appetite—will do good and not harm.

Medicinal remedies are useful in relieving some of the symptoms. The regurgitation of fluid from the stomach, *water-brash*, and the *heart-burn*, may be relieved by moderate doses of subnitrate of bismuth.

The distention by gas and the constipation are best relieved by an enema, which should be retained for fifteen or twenty minutes. The patient should drink a great deal of fluid—milk and water. Water should be taken in large quantity between

meals—not until an hour after or half an hour before meals. A movement of the bowels every morning should be sought directly after breakfast. Every effort should be made to induce this habit. A glass of cold water directly upon rising will be useful in this regard. A general tonic will be found most useful, and should be occasionally changed for another. Among the best may be mentioned *quinine*, in two-grain doses; *compound tincture of gentian*, in teaspoonful doses, and *tincture of nux vomica*, in fifteen-drop doses.

Polyphagia—Excessive Appetite—Gluttony.

POLYPHAGIA is characterized by a voracious appetite, and the ingestion of enormous quantities of food beyond the demands of the system. Sometimes the capacity of digestion is increased in these cases, which leads to excessive accumulations of fat, and to fatty degeneration of the heart and other organs. In the sense in which the term is used, it implies a disease. It is sometimes observed in cases of mental derangement. The excessive craving for food may be diminished by the use of opium in some form. Recovery is to be expected.

Polydipsia—Excessive Thirst.

POLYDIPSIA is a very rare disease It consists in an excessive craving for the imbibition of enormous quantities of water. The quantity of urine voided is proportionately great, is pale and limpid, with nearly the specific gravity of distilled water. It contains no sugar or other abnormal constituents. There is no other evidence of disease. The patient drinks several gallons of water daily. A young man, a patient in a public asylum, in excellent physical health, developed this curious affection. As soon as the fact was discovered, an investigation was made by confining him to his room, where he was permitted to have all the water he desired, all of which was carefully measured to him. The amount drunk during the day was *fourteen quarts*. The urine voided during the same time was also measured, and corresponded precisely to the water drunk—*fourteen quarts*. The next day he was permitted to have only a pint and a half of fluid—half a pint with each meal. The third day he was also restricted to *a pint and a half* of fluid, and the urine voided during the third day was precisely the same as the water taken—*a pint and a half*. Recovery in this case was complete, without other treatment than restriction in the amount of water drunk. The symptoms shown during the excessive water-drinking were indifference and excessive laziness. Now, after three years, there has been no recurrence of the symptoms.

Dipsomania.

DIPSOMANIA is the term used to express a morbid craving for alcoholic stimulants. The habit may be developed through dyspepsia or other disease of the digestive system. We have in mind a pitiable case of a lady who developed the habit through efforts to get relief from a distress which afterwards proved to have been caused by a tape-worm. The desire for drink in some of these cases assumes the nature of the delusions of insanity. In such cases it is useless to reason with the patient, and the only certain hope of relief is by placing the patient in some institution, where stimulants will be withheld and suitable medicinal and hygienic treatment can be enforced. The patient should reside in such an institution long enough to have the physical health fully restored and the morbid appetite quite fully overcome.

Inanition—Starvation.

INANITION.—To preserve the health and strength it is absolutely necessary that food should be supplied in generous quantity and variety. There is no one article of food which contains all those principles which are necessary to the perfect nutrition of the body; and among the first organs to suffer for lack of proper nutrition are the organs of digestion. Every one knows the pain and exhaustion produced by a single day's abstinence from food. Especially is this excessive if work has been necessary in addition to the abstinence from food. Now, we have very little to do with cases of famine, or starvation by shipwreck. If our assistance could be made available in such cases, we should not need to seek the advice of a physician; but the first move of the best informed as well as the most obtuse person would be to supply proper food. How differently even the best informed often treat the sick of their own families, not knowing what is best to do. In a fever of whatever kind, the tissues are being far more rapidly oxidized or burned up than in health, as evidenced by the great heat of the body and the rapid loss of weight. Under such circumstances, the patient, to keep up the loss, really requires more food than in health, and yet how often he is deprived of food entirely for days together, with the idea of "starving a fever." It is the patient, and not the fever, that is being starved. The tissues of the body are being rapidly consumed, and if food is not furnished to rebuild these tissues, the patient must die from exhaustion. If a well person even were put to bed, and there kept practically without food, and scarcely permitted water, for three or four weeks, as many typhoid-fever patients are, a very large proportion of them would die, and it would be plain that such a person had been starved to death. Many a fever patient has been starved to death who is said to have died from fever. Many a dyspeptic continues ill for years because he restricts himself ignorantly to too small a quantity or to too small a variety of food. Patients with cancer of the stomach, or ulcer of the stomach, or chronic diarrhœa or dysentery, and many other diseases of the digestive organs, *generally die of starvation*. The prime object, then, in all such diseases, is to supply such food as can be digested and taken into the blood, in the greatest possible variety, and in such quantities as will repair the waste by disease. Either an insufficient quantity or variety of food is certain to be followed by disease. Disease and pestilence always follow famine. Certain diseases, as *scorbutus* (scurvy), are developed for want of variety of food.

Gastritis—Inflammation of the Stomach.

ACUTE GASTRITIS is a very rare affection. It seldom occurs except as the result of a wound or of some corrosive poison. Pain is intense; thirst is excessive; vomiting is frequent and very distressing. The vomited matters are at first of a greenish color; but if life is prolonged, in fatal cases, the vomited matters are black, with the appearance of coffee grounds. The surface is cold, and prostration is extreme. Besides poisons, the taking of large quantities of alcoholic stimulants without food may act as the cause of an attack. Death, in fatal cases, takes place in

from a few hours to a few days. Cases of this disease are so grave that a physician is always promptly called. The treatment will therefore best be left to his advice. When the cause is by a corrosive poison, the proper treatment will be found under the head of poisons.

SUBACUTE GASTRITIS, or *catarrhal inflammation of the stomach*, is much more frequent in infants than in adults. When it occurs in adults, appetite is impaired or lost; nausea and vomiting are very likely to occur; sometimes it is a very severe and persistent symptom. Thirst is very great, and cold water is craved. Headache is usually very great, and weakness and exhaustion keep the patient in bed. Many of the symptoms are identical with the disease already spoken of under the heads of *acute dyspepsia* and *sick headache*. The most prominent distinction is found in the duration of the attack, subacute gastritis continuing for from one to three weeks. The termination is almost always favorable; only very rarely, and in the most severe cases, when the symptoms approach those of *acute* gastritis, is there any cause for alarm concerning the termination of the case. The cause of the disease is not always clear. Among adults, those addicted to intoxicating beverages are especially liable to it.

Treatment.—The patient may, for a few days, be restricted to a milk diet. If the stomach is intolerant of food, enemas of milk may be given, half a pint at a time, and as often as once in three or four hours, until the condition of the stomach has improved. Small pieces of ice may be swallowed to relieve the thirst and the nausea. The following prescription will perhaps prove the most useful of any that could be taken to relieve the pain and vomiting:

Subnitrate of bismuth, - - -	1 dram.
Sulphate of morphine, - - -	1½ grains.

Make eight powders. Give one powder as often as necessary to relieve pain.

Neither emetics, cathartics nor laxatives should be used. If constipation exists, an *enema* or injection of warm water should be used to produce an evacuation.

CHRONIC GASTRITIS is a chronic inflammation of the mucous membrane of the stomach. It is sometimes very difficult to distinguish between chronic gastritis and the functional disease *dyspepsia*. If there is great thirst, tenderness and soreness at all times over the stomach, loss of weight, occasional vomiting, the symptoms point to *gastritis* rather than to *dyspepsia*, in which none of the above symptoms are prominent.

Many causes lead to the disease. Insufficient food is perhaps the most frequent cause.

Persons suffering from functional dyspepsia brought about by a nervous condition due to anxiety or depression, may, by limiting the quantity and variety of the food, bring about a real inflammation of the coats of the stomach. Remember that harm is always the result of severe so-called "dieting," that is, limiting the food taken to an insufficient quantity and small variety.

Another and almost as frequent a cause is, as in the subacute variety, the use of alcoholic stimulants. It is also caused by the continued use of arsenic, taken sometimes as a medicine, but more often to improve the complexion. Disease of the liver, by causing congestion of the stomach, also acts as a cause.

Treatment.—The food best adapted in cases of this sort is milk, bread, butter and eggs, beef extract, rice, corn-starch, etc. A change of scene, fair exercise, and recreation for the mind, are in the direction of the best results. As regards medicine, nothing can be better than the treatment recommended in dyspepsia.

Ulcer of the Stomach.

GASTRIC ULCER is a tolerably frequent disease. It is also a disease of gravity and danger. The ulcer is of two kinds. One, known as the *perforating ulcer*, is small and deep, and affects chiefly young people—girls and young women with much greater frequency than young men. It is said that servant-girls are more often afflicted by this form of ulcer than others, although I can see no reason for this and doubt the fact. The other form is larger and not so deep. It may be as large as a silver dollar, or even larger, and people of middle age are more often the subjects.

The prominent symptoms are pain directly after eating, local tenderness on pressure, vomiting after eating, and hemorrhage or bleeding into the stomach. If blood is poured out into the stomach it is very likely to be vomited. If it is not vomited immediately it is turned black by the action of the gastric juice. From the fact that the matter vomited is *black*, without further examination it can be almost certainly relied upon as being blood. If vomited immediately that hemorrhage takes place, it will have the red color of blood. If the above symptoms occur in a young person, it is almost certain that ulcer of the stomach is the cause. Hemorrhage may take place into the stomach, however, without causing vomiting. But even without this proof, the other symptoms are usually sufficiently clear to render an opinion upon. In case of ulcer, pain occurs immediately upon introducing food into the stomach. In other stomach diseases (with the exception of cancer) the pain does not occur until some time later. If any considerable bleeding takes place and is not vomited, the patient shows the fact by weakness, paleness, prostration, thirst, and a peculiar throbbing of the arteries in the neck, caused by being only half filled with blood at each pulsation. If the patient is young we may be absolutely certain that the ulcer is not a cancer of the stomach (which, in many respects, has the same symptoms), for cancer rarely happens in young people. If the patient is of middle age, then we may not be able to decide the case at once, although the peculiar symptoms as regards the appearance, in addition to peculiarities in the character of the pain in a patient suffering from cancer, are usually sufficient to render an opinion tolerably safe.

In fatal cases death takes place by different ways. It sometimes happens that the vomiting of blood is the first symptom pointing to the disease. Hemorrhage sometimes is so great as to cause death. By the ulceration af a blood-vessel of considerable size, the patient bleeds to death. Another cause of death is by the ulcer perforating the walls of the stomach, thus permitting some of the contents of the stomach to escape into the abdominal cavity, and thus setting up an inflammation of the lining membrane of the abdomen (*peritonitis*, a very painful fever), which, when produced by this cause, speedily results in death. The other way in which gastric or *stomach* ulcer causes death is by *inanition*, or starvation. When food is

vomited as soon as taken, day after day and week after week, the patient rapidly loses weight, and if nutrition is not supplied in some other way, soon dies for want of food.

Treatment.—To stop hemorrhage, pieces of ice may be given to the patient to swallow, and cold may be applied over the stomach. If perforation takes place, nothing can be done. If vomiting is persistent, it is well not to give the patient any food by stomach, but give enemas of half a pint of good rich milk, beef-tea or mutton broth, and the white of eggs beaten up with the milk. This is for the purpose of giving the stomach a rest, and the ulcer, being thus left free from irritation, a chance to heal. This method of feeding has, in some cases, been kept up for two or three months at a time, with the best results.

Morphine and *bismuth* may be given, to relieve pain and vomiting. If food is given by stomach, it should consist principally of milk.

Cathartics or laxatives should never be given by stomach. If at all, they should be given by enema. Usually enemas of water are all that will be required.

Cancer of the Stomach.

CANCER OF THE STOMACH is not a frequent disease. Simple ulcer of the stomach is far more common. Perhaps one-third of all cancers are of the stomach. The disease rarely occurs before forty years of age. It is most common between fifty and sixty. It is twice as common in men as in women. Sometimes there is considerable difficulty in finding out what is the matter. There is usually loss of appetite and loss of flesh, with weakness and exhaustion. There is pain in the stomach, which is increased after meals, and frequently vomiting also. Often there is a peculiar yellow complexion, which points to cancer as the cause. If these symptoms should occur in a young person, simple ulcer of the stomach is more probable. Sometimes a tumor can be felt through the abdominal walls over the stomach. If this can be done, and the other symptoms are present, there can scarcely be two opinions in the case. The loss of appetite, the cutting pains, the vomiting, the black, coffee-grounds-appearing substance (blood acted upon by gastric juice) in the vomited matter, indicate that the trouble is not dyspepsia. The pain of cancer is "cutting." Of simple ulcer it is described as "burning" or "gnawing."

The pain in cancer is more constant, while in ulcer it occurs more particularly after eating; vomiting more immediately after eating in simple ulcer. Hemorrhage is more frequent and greater in amount in ulcer than in cancer. A tumor is never found in simple ulcer, and is often to be found in case of cancer of the stomach. These things, taken in connection with the history of the case, are usually sufficient to decide the case.

Treatment.—There is no treatment that is of any avail in curing the disease. Remedies may be given to relieve pain, and life may be prolonged by careful attention to the nutrition of the patient.

Diarrhœa.

DIARRHŒA is an affection of the small intestines, and is due to many different causes. It may be temporary, lasting but for a few hours, or it may be chronic, lasting for months. It may be caused by any trivial thing, as a slight change in the weather or some temporary indigestion, or may be a symptom of some grave or chronic disease, as typhoid fever, consumption or intestinal catarrh. There is one type which is probably due to disease of the pancreas, in which fat, in appearance like melted butter, is evacuated, which upon cooling over the stool gives it the appearance of being mostly fat. This form is of considerable gravity, and often proves fatal.

Diarrhœa occurs most frequently during the summer months. In September, when the weather suddenly becomes cooler, there are always a large number of cases.

Treatment.—If in the beginning of a diarrhœa the bowels are freely evacuated by some mild cathartic, nothing further is generally required. For this purpose a small dose of *salts*, or what is better, *castor oil*, may be taken. If the diarrhœa continues, twenty-five drops of *laudanum* may be taken every three to six hours. Or instead, five-grain doses of *Dover's powder*, or a sixth of a grain of *morphine*.

In case of chronic diarrhœa, more dependence for a cure must be had upon suitable diet. Those articles should be eaten which are principally or wholly digested in the stomach, and not those which are digested in the small intestine. Tender meats of all sorts are best digested; milk may be taken also, and ripe fruits. Vegetables generally should not be eaten. The food should be taken frequently, and a small amount at a time. If the patient lives in the city, a change should be made to the country. A malarious district should be avoided, and care should be taken as to dress. Woolen should be worn next the person at all seasons. Rest in bed is useful. Tonics should be taken—among the best are *iron* and *quinine*. Fifteen or twenty drops of laudanum may be taken when required to check the diarrhœa.

Summer Complaint.

Diarrhœa occurring in young children, and prevailing during the warm season, is known as *summer complaint*. It is common during teething, and may begin in an acute attack of *cholera infantum*. It is a cause of great mortality among little children. In the large cities during certain months fully one-half of the deaths are due to this cause. The little patient should be removed to the country if possible. A spot should be selected that is free from malaria, that is cool and dry. Pure, fresh, sweet milk, together with lean, tender meats, rare done, or raw tender beef chopped fine and seasoned to taste, should be fed the child. Tonics may be given, and from twenty to sixty drops (according to the age of the child and severity of the diarrhœa) of the *camphorated tincture of opium* (paregoric) may be given every few hours. Food should be taken often, and a small amount at a time.

Enteritis — Inflammation of the Small Intestine.

ENTERITIS, either *acute* or *subacute*, is very rare after the age of infancy. The diagnosis is not always clear, but diarrhœa is always a sympton, and is generally in children classed under *summer complaint* or *cholera infantum*. The treatment advised under these heads should be employed. When occurring in adults, rest in bed is to be strictly enjoined, hot poultices or hot water dressing over the abdomen may be used,

and opium in some shape, *laudanum* or *morphine*, is to be given, together with *quinine*.

Dysentery — Inflammation of the Large Intestine.

ACUTE DYSENTERY, or "*flux*," occurs in single, isolated cases, and as an epidemic. The disease is more frequent in hot than in temperate or cold climates. It is more common in the summer or fall than at other seasons. The inflammation is confined to the large intestine, and in many cases affects only a very small portion of it. The isolated cases usually end in recovery, although death sometimes results in the most severe cases. The epidemic variety, commonly known as the *bloody flux*, very frequently proves fatal.

The disease usually begins with loose passages having the appearance of an ordinary diarrhœa, but within a short time the character of the evacuations changes, showing a large amount of mucus, commonly spoken of as *slime*. Following this, very dark evacuations frequently take place, the color being due to blood, the red color of the blood being changed to black by the contents of the intestine. There is considerable griping and pain with a constant desire (called by physicians *tenesmus*) to evacuate the bowels. There is more or less fever and weakness. Vomiting is also common.

In the epidemic variety the progress of the disease is much more rapid. All of the symptoms are exaggerated. The quantity of *slime* is more abundant; blood in its red color is evacuated, sometimes in considerable quantity. The fever is much higher, and exhaustion and prostration are much more marked. Death sometimes takes place within a few hours, and sometimes not until the third week. The great majority of cases recover. The disease may occur at any age, but is most common from thirty to forty years.

Treatment.—A full dose of *castor oil* or *salts* may be administered in the beginning of the disease, to remove all offending substances from the bowels. This is not to be repeated. The treatment from this on consists in efforts to support the strength of the patient and to limit the movements from the bowels. The patient should be kept quiet in bed, and should restrain a movement as long as possible. Meat broths and milk should form the chief part of the diet. Vegetables should not be permitted. Opium in some form, either as *laudanum* or *morphine*, or *Dover's powders*, should be given after every movement. It is well to introduce this medicine by injection or suppository if it can be so retained; otherwise it must be taken by stomach. If vomiting is present, efforts to relieve this must be made, directions for which will be found in this article, under its proper head. *Quinine* in four-grain doses should be given to keep up the strength. In malarious districts especially is quinine imperatively called for. Stimulants, as *brandy* or *whisky* or *milk punch*, should be given in all cases of great prostration.

CHRONIC DYSENTERY rarely occurs except as it follows acute dysentery. It is a very grave and most intractable disease. It may be difficult to determine whether a given case is chronic dysentery or chronic diarrhœa; that is, whether the inflammation is of the large or small intestine.

Treatment.—Enemas of warm water should be used after each movement, and immediately returned, the object being to keep free from irritating matter the ulcerated and inflamed spots. Tonics must be given, and the diet should be most nutritious, and contain as little waste as possible to pass over the diseased parts. Opium should not be used except when especially indicated by pain, for the reason that it interferes with the appetite. The tendency of the disease is to progressive loss of appetite and flesh, and gradual decline, prostration, apathy and death from exhaustion.

Constipation—Costiveness.

CONSTIPATION, or *costiveness*, may proceed from a variety of causes. It is an affection of the large intestines, and is generally *functional*, *i.e.*, it is not due to any *organic* change in the part. It is a very frequent, and is generally not at all a serious affection, although it brings about great discomfort, and may be the origin of dyspepsia, piles and various other troublesome diseases. It occasions headache, dulness of mind, palpitation of the heart, accumulation of gas in the stomach and intestines, colic pains, and sometimes diarrhœa. Severe straining may produce great harm. Blood-vessels in the brain have been ruptured, and protrusion of the rectum has been occasioned by it.

It is caused most frequently by neglect to attend to the calls of nature when it is demanded, and both the sensation and desire after a time subside. It may be twelve or twenty-four hours before the call is repeated. Again it may be ignored, and again subside. In this way a habit is formed which becomes very troublesome, destroys one's comfort, and frequently, by interfering with digestion, undermines the general health. This habit of neglecting the calls of nature is brought about chiefly by two causes: the mind may be occupied and the patient driven with work. He will not take the time either to eat properly, or to visit the closet. But the far more frequent cause, in my opinion, especially in the country, is the neglect of people to provide themselves with comfortable closets, and sometimes not even uncomfortable out-houses. In winter, when the thermometer is from five to forty degrees below zero, with deep snow-drifts, and the wind blowing a gale, a trip to a stable, or to a cold out-house, through the cracks of which the wind drives a freezing blast, is indeed a dreaded experience. To bare oneself in such cold, and perhaps stop the wind out of the privy with a portion of one's anatomy, is not an experience that seeks frequent repetition. Again, when it rains in spring and fall, there is a dread of going out into the storm. And in summer the stench from the privy vault is often so offensive as to deter frequent visits. Thus, by these inconvenieces, people develop a habit of waiting as long as possible, frequently for days together, until a troublesome constipation is developed, which may be very difficult to cure.

Treatment. — Attention should first be directed to a cure of the bad habit of irregularity. The patient should go regularly every morning after breakfast, and take plenty of time to complete the act. Every house should have a comfortable closet, free from bad smells. If in the country where there are no sewers, and no closet is possible in the house, the privy should be well built, the outside well boarded up and battened and the inside lathed and plastered, so as to keep out the wind. A wooden box should extend up through the privy and open outside, so as to ventilate the vault, which should be often

cleaned out. A good board walk should extend from it to the house; then, if the house will keep an umbrella for rainy weather, the comfort and health of the family will be greatly enhanced, and the doctor's bills will be smaller.

Of course there are other causes, but, whatever they are, care should be taken to remove or avoid them. If constipation is only temporary, a laxative pill may be taken, or an enema of water. If, however, it be habitual or chronic, other means will have to be employed to cure it. The diet should be, in good part, articles which leave a large residue of undigested matter to be carried out of the body, such as vegetables, salads, cabbage, greens; or corn-bread, oat meal, cracked wheat, etc. A glass of cold water taken fifteen or twenty minutes before breakfast is often very useful. If medicines be taken they should be taken in small doses and frequently repeated, so as to bring about a regular habit. Free purgation should never be sought; much harm is done by it. A small pill of *aloes*, or of *aloes and strychnine*, which may be had at the drug stores, will be found very effective. One pill should be taken every night; sometimes one every night and morning may prove most effective.

Colic.

COLIC, strictly speaking, is a functional affection of the colon, characterized by spasmodic pains. It has, however, by common usage, been made to apply generally to all severe spasmodic pains in the abdomen. Thus it is applied to the pains in certain inflammations, as *peritonitis*, *enteritis* and *dysentery*, to the pain caused by the passage of gall-stones, and to that caused by the passage of small stones from the kidney into the bladder, as well as to certain neuralgias of the abdominal organs, as that caused by lead-poisoning. So the distinctions are made by prefixing a word, as *flatulent*, or wind colic; *crapulous* colic, or that caused by indigestion, as in *cholera morbus; hepatic* colic, caused by the passage of gall-stones; *nephritic* colic, caused by passage of calculi from the kidney, and *lead* colic, caused by lead-poisoning.

For treatment of the colic of dysentery, peritonitis, cholera morbus and cholera, as well as of the pain accompanying the passage of stones from the gall-bladder and kidney, see the proper heads as above.

The pain in colic is caused by spasm of the muscular coat of the intestine. The object of treatment is to relieve this spasm. Some persons are subject to frequent attacks, which are brought about by slight causes. Constipation is a frequent cause.

Treatment should first be directed to the relief of the pain. Hot cloths placed over the abdomen, or cloths wrung out of hot water, will aid, and will sometimes alone fully relieve the patient. Various hot and stimuluting drinks are useful, but there is no remedy so absolutely certain of relief as some form of opium. Twenty-five to forty drops of *laudanum* may be given every half hour to an adult, either by injection or by the stomach, until relief is obtained. For children, a proportionate dose. For infants and children under four years, *paregoric* is safest. For adults, *morphine* may be given in quarter-grain doses, every half hour until relieved. If the patient is constipated, two or three compound cathartic pills may be taken, or what is better, a large injection of warm water, so as to free the bowels. This, in most instances, will complete the cure.

LEAD COLIC is caused by poisoning by lead. The lead may be taken into the system by many different ways, without the knowledge of the patient. Persons manufacturing paints or working in shot-factories or other places where lead is used may be poisoned. Painters are very liable to lead-poisoning. Persons have been poisoned by sleeping in a newly-painted room, or by using certain face-washes and hair-dyes which contain lead, or by drinking water which has stood in lead pipes, or beer or cider which has been for some time in contact with a lead faucet, and by many accidental or intentional adulterations of food. Lead-poisoning is manifested by various affections of the nervous system, such as paralysis, as of the extensor muscles of the hand, and neuralgias, of which colic, or neuralgia of the intestines, is one.

The bowels are usually constipated. The pain is sometimes dull and heavy, and sometimes sharp and cutting. It usually comes on very gradually, beginning with slight pain, and grows worse until it may become very severe. There is seldom entire relief from pain, but there are periods of great increase, when the paroxysms are excruciating. If not relieved by treatment, the pain is likely to continue for days, and perhaps for weeks, and attacks will frequently occur. Persons do not die from lead colic, although they may from other effects of lead-poisoning. A blue line along the gums next the teeth is usually present in these cases.

Treatment should first be given as in ordinary colic. When the pain is relieved and the bowels moved, the following prescription should be taken, which will produce a permanent cure:

Iodide of potassium, - - - -	1 ounce.
Distilled water, ad. - - - -	1 ounce.

Mix.

Dose: As directed.

The above is a saturated solution. Begin with five drops in a wine-glass of water three times a day after meals, and increase one drop each day until the patient is taking twenty-five to thirty drops three times a day.

Cholera Morbus.

CHOLERA MORBUS, or *sporadic* cholera, begins very suddenly by vomiting and colic pains. This is followed by purging and increase in pain and continued vomiting. The vomiting is sometimes preceded by a sense of weight and uneasiness in the stomach. If the vomiting and purging continue long, both the vomited matters and the dejections become entirely fluid and acrid. The skin is usually cool or cold; cramps occur in the legs and feet and in the abdominal muscles. During the interims between vomiting and purging, the patient is greatly prostrated and exhausted. The mouth is dry, and the patient suffers from great thirst.

The disease is more frequent in the summer months, and is more likely to occur at night than in the day-time. The patient usually recovers.

Treatment.—There is but one remedy worthy of mention in this disease, and that is opium in some shape. The injec-

tion of a solution of morphia under the skin is the best way to administer it. But none except physicians are possessed of the necessary instrument for this purpose. Therefore, if the method of administration given below should fail, by being vomited or evacuated before an effect can be produced, a physician should be called.

Half a grain of morphia should be taken dry on the tongue and dissolved in the mouth, and should be given directly after vomiting. If this is rejected, the dose should be at once repeated. If this is again rejected, it may again be repeated, or from sixty to eighty drops of laudanum may be given in two tablespoonfuls of water by injection. This should be given directly after a movement of the bowels, so as to have time to take effect before the next movement occurs. If this be rejected, the injection should be repeated.

To relieve thirst, small pieces of ice may be taken into the mouth, or a spoonful of water may be allowed every few minutes. Sometimes a very hot cup of tea, taken without milk or sugar, acts well in relieving the vomiting. The body should be wrapped in a warm blanket.

Cholera Infantum.

The affection treated of under this head is similar to the *cholera morbus* of adults, except that it is applied to children usually under two years of age. Unlike the disease in adults, where recovery is almost certain, in children under two years it is frequently fatal. Indeed, cholera infantum, together with the more chronic affection known as *summer complaint*, causes, in the large cities of the United States, nearly one-half the deaths during the hot season. Children of the poor living in crowded tenement-houses are more liable to the disease than others. Change of food, as in weaning, frequently acts as a cause. Children brought up on a bottle are especially liable to it. Doubtless poor, diluted, changed or soured milk is a cause. The greatest care should be taken to obtain fresh and pure milk for infants during these months. Unless there is urgent need in the interest of the mother's health, a child should not be weaned during the hot months.

The attack usually begins with vomiting and purging, which acts are frequently repeated. The vomited matters and the dejections are very fluid; pain, prostration and cramps ensue; the body is cold. If the purging and vomiting can be arrested recovery may quickly take place. If this cannot be controlled, however, the child rapidly fails, suffers from thirst and pain and prostration, and in the course of two or three days goes into collapse and dies. It may, however, become chronic, an affection previously treated under the head of *summer complaint*, when the child, in unfavorable cases, gradually fails, becomes emaciated and dull, and finally dies of starvation.

Treatment.—When an attack begins the babe should be wrapped in a warm shawl or blanket. Twenty to thirty drops of *paregoric* should be given directly after vomiting. If it is rejected the dose is to be repeated. If this is again rejected or if relief does not follow, it is again to be repeated. Each time it should be given directly after the act of purging. If purging is not so frequent the medicine is better given by injection. Drinks of very warm tea may be given; let the tea be as hot as can be well taken. A physician should be called if relief is not soon obtained.

The treatment for the chronic form will be found under the head of summer complaint.

Epidemic Cholera.

EPIDEMIC OR ASIATIC CHOLERA is a disease which seems to take its origin in India. There it exists sometimes in isolated cases, and sometimes as an epidemic. Frequently it leaves its native country, and makes trips over the entire civilized world, following the highways of travel and commerce. It first occurred in the United States in 1832; again in 1834. Again it took its origin in India in 1847, and reached this country in 1849, and prevailed here in 1850, '51 and '52. Beginning again in India in 1864, it reached the United States in '66 and prevailed somewhat in '67.

The pathology and cause of the disease are not well understood. But this much is quite well established: That it has a special cause, and that this special cause can be transported and reproduced in places where the conditions are favorable to its development—conditions similar to those where it first took its origin. That this special cause may be rapidly developed under conditions favorable to it; that it may be destroyed by disinfectants, and that it suddenly becomes inert, inoperative, or is carried away by causes not understood. There are many well-established facts concerning its communicability, which, however, are often apparently contradictory, and hence there are few physicians who do not hold in reserve or doubt any opinion which their experience has led them to entertain.

The introduction of cholera into New York in 1866 was not traceable to any particular emigrant passenger, nor any particular lot of baggage or goods, nor to any particular ship; but it followed the arrival of infected ships into the harbor.

The first cases occurred almost simultaneously, and in widely separated districts. This could hardly have been the case if the disease had been communicated from one person to another.

As the season advanced and cases became more frequent, the disease was found to prevail in certain low and insalubrious localities, while the rest of the city was almost free from the epidemic. These localities were widely separated.

There was no evidence that the disease was ever directly communicated from one person to another. Persons in the same house, and who waited upon the sick, were not more frequently attacked than other persons who resided in the insalubrious district, but at a distance from any case.

Where the epidemic has prevailed in Europe and in this country, no more than from one to ten in a hundred physicians and nurses who cared for the cholera patients had the disease. In the London hospital, out of one hundred persons employed in the cholera wards only five had the disease, and of eleven laundry-women employed at the hospital to wash the soiled clothing and bedding of cholera patients, only one was attacked.

It is thought by some to have its origin in germs developed in the alimentary canal of cholera patients, which are further developed in the soil, the condition of which, as regards composition, temperature and moisture, must be favorable. This one, of all the theories, would best explain the phenomena as

usually observed. In New York, for example, only in the low and unhealthy parts of the city did the disease make its appearance. Some cases occurred in persons after leaving these unhealthy districts for healthy ones, but none of these communicated the disease to persons living in the healthy district to which the patient had gone. The germs from the infected ships seem to have reached all of the infected districts at about the same time, and, it may be, could only become active by development in the soil peculiar to these districts, for the high and clean parts of the city never became affected.

In the great majority of cases cholera is preceded by a simple diarrhœa, which continues from a few hours to a week, in different cases, before the full development of the disease. This is not attended by pain and is usually considered by the patient as of no consequence. Vomiting during this stage rarely occurs. This diarrhœa occurs in not less than ninety per cent of cases. Suddenly the diarrhœa changes its aspect, and large watery evacuations take place. This marks the beginning of the disease proper. The dejections may be clear like water, or may be milky or muddy in appearance. Sometimes the dejections are very large, sometimes small. The act is not attended by pain. Gurgling sounds in the bowels are common. Vomiting is also a common symptom. The matter vomited is a watery liquid. As the disease progresses there is a sense of great prostration and weakness. The skin is cool. In some cases cramps occur in the muscles of the legs. If the disease pursues a favorable course, the vomiting and purging cease at the close of the stage of invasion, and the patient at once becomes convalescent, and in the shortest space of time is restored to his usual health.

If the disease does not end with the first stage, all the bad symptoms continue. The pulse usually is frequent and very feeble, ranging from 110 to 150 per minute. The surface of the body becomes cold, the lips and face blue. The breath is cold and the respiratory act is more frequent and irregular. The voice is feeble; the patient is indifferent and has no apprehensions for the result. The cramps in the feet and legs is the only pain suffered. Thirst is very great; the patient craves cold water. The face becomes so changed and old in appearance as not to be recognizable. The patient may sink into complete collapse in from three to eight hours, in which state death usually ensues.

If the patient rallies from the state of collapse, he is likely to continue in a critical condition for some time before reaching convalescence. Diarrhœa and vomiting frequently continue, the matters now being greenish yellow in color, and the patient may finally sink into a typhoid state and die. If recovery finally takes place, convalescence is generally slow, and the health is not fully restored for a long time. Exceptionally, even from the collapsed state, recovery rapidly supervenes.

Prevention of Cholera.—Much may undoubtedly be done to prevent the disease by attention to cleanliness, and by disinfectants, and none of these things should be omitted.

There is, however, in nearly all cases, a premonitory diarrhœa, and if this be effectually treated there is little danger of the full development of the disease. Prudent and intelligent people who give prompt attention to any occurrence of diarrhœa during the prevalence of the disease rarely have cholera.

If the diarrhœa occurs in a young child, full doses of paregoric should be given every time the bowels move. If more than eight years old, full doses of laudanum should be given, together with acetate of lead and bismuth. For an adult, twenty-five to forty drops of laudanum, or, instead, one-sixth to one-quarter grain of morphine after every movement of the bowels. Small doses of red pepper, in addition to the opiates, are useful. The above treatment, taken in time, will prevent the further development of the disease in almost every case.

The treatment of cholera, when fully developed, does not differ during the first stages from that recommended during the premonitary diarrhœa, except that the opiates should be given in larger doses. After collapse has taken place there is little that can be done with any hope of success. Sometimes active treatment in this stage does harm; it rarely does good. The body should be kept warm by the application of dry heat. The nutrition should be kept up, and brandy and water may be given frequently in small quantities.

THE CIRCULATORY ORGANS AND THE BLOOD.

Absorption.

Under the head of "Physiology of the Digestive Organs" was described the elaborate process of the solution of the food. When this process has been completed, absorption takes place by the blood-vessels upon the walls of the stomach and small intestines, and by a special system of little vessels called lacteals, which open upon the intestinal walls. The solution of albuminous substances and the emulsion of fats must be perfect, or they will not be taken up. Whether they are taken up by the blood-vessels or lacteals, the product is emptied into the large veins. With the exception of that carried by the *thoracic duct*, and one or two other lacteal trunks, the product of digestion, *chyle* by name, is carried, with venous blood, directly to the liver, where it is distributed to the liver cells in minute capillaries, and is here probably further modified, elaborated and refined, and also gains the substance *glycogen*, a liver sugar, and is then carried to the heart in the current of venous blood, and from the heart is sent to the lungs, there to be purified by the oxygen of the inspired air, and again returned to the heart, fit to be used in nourishing all the delicate tissues and organs, and in turn to be oxidized or burned and carried out of the body.

THE HEART AND BLOOD-VESSELS.

The heart is the central organ of the circulatory system. It is situated almost in the centre of the chest, between the right and left lungs. Its base is above and to the right, and its apex downward and to the left. It may be felt beating a little below and toward the median line from the left nipple. It is in size about as large as the closed fist of the person to whom it belongs. It is a hollow muscle containing four cavities, two of which are upon the right and two upon the left side of the organ; the heart thus being a double, or, indeed, two distinct organs, a right and a left heart, which, though bound together, are entirely distinct from each other, each having its own particular work to perform. The two cavities of the right side of the heart communicate with each other, as do also the two cavities on the left side. The openings between the cavities are guarded by valves, which permit the blood to flow only in one direction.

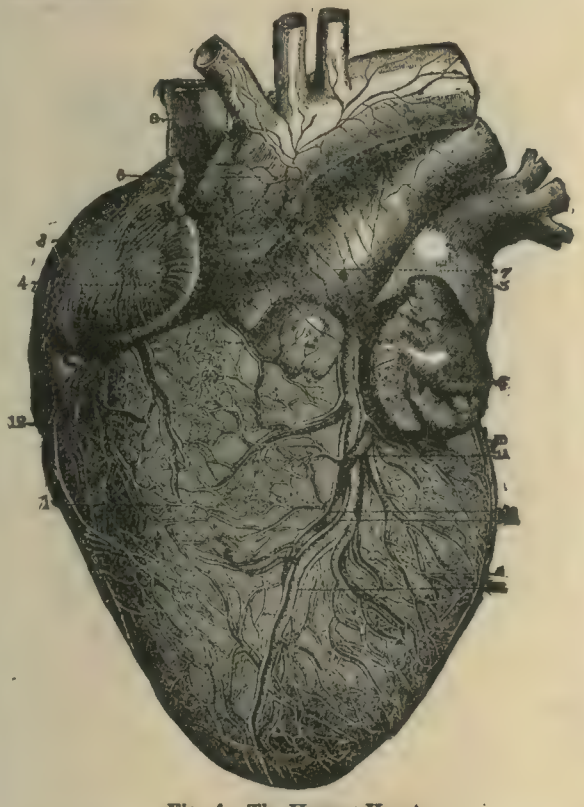


Fig. 4. The Human Heart.

Connected with each of the four chambers of the heart are large blood-vessels. The large veins (Fig. 5), the *vena cava ascendens* (1), and the *vena cava descendens* (2), bring the blood from all parts of the body to the right heart, and pour it into the upper chamber (3), which, from its fancied resemblance to the ear of a dog, is called the *auricle*. This upper cavity of the right side of the heart into which the *venæ cavæ* empty, is known as the *right auricle*. It has very thin walls and serves only as a receptacle for the venous blood until it can be received into the cavity below, which is called the *right ventricle*. As soon as the right auricle is filled, its walls contract, and the valves which guard the opening (5, 5, Fig. 6) are pushed open as shown in the cut, and the blood flows into and fills the cavity (6) of the right ventricle. The right ventricle thus being filled, its walls immediately contract, the movement of the blood closes the valves (5, 5) called the *tricuspid* valves, which guard *auricular-ventricular* opening (4), thus preventing (as shown in Fig. 7), the regurgitation of the blood back into the auricle. At the same time it pushes open the valves



Fig. 5.

1, 2, Venæ cavæ, ascendens and descendens; 3, right auricle; 4, 4, 4, 4, lungs; 5, pulmonary artery; 6, right ventricle; 7, 7, 7, 7, pulmonary veins; 8, left auricle; 9, left ventricle; 10, aorta

(9, 9) called the *pulmonary* valves, which guard the entrance (7) into the *pulmonary artery*, so that all the blood in the right ventricle (6) is forced into the pulmonary artery (8), which leads to the lungs (4, 4), as shown by the black vessel (5) in Fig. 5, where it divides into a minute capillary network upon the walls of the sixty million air-cells of the lungs. In these capillaries the pulmonary veins begin by little rootlets which flow together, forming minute veins, and these unite to form larger veins, these again to form still larger, until the four (7, 7, Fig. 5) large pulmonary veins—two from each lung—are formed. These bring back the purified blood from the lungs and empty it into the upper cavity (8, Fig. 5, or 14, Fig. 8), of the left side of the heart. From this cavity, by contraction of the auricular walls, the blood flows downward through the auriculo-ventricular opening (15), guarded by the *mitral* valves, into the left *ventricle* (16, Fig. 8), in the same manner as on the right side. As soon as the left ventricle is filled with blood, its strong muscular walls contract. The movement of the blood closes the mitral valves (15, Fig. 8), which prevents the blood from flowing back into the left auricle, and pushes open the *semilunar* valves (*g*, Fig. 9) which guard the entrance into the *aorta*, so that all the blood in the ventricle is sent into the aorta, and thence all over the body, with such force that all the larger arteries swell and throb as the

blood rushes through them. This throb of the arteries is called the *pulse*. Physicians make use of this knowledge to ascertain, in disease, how the heart is doing its work.



Fig. 6. Diagram of Right Side of the Heart.

1, 2, Venæ cavæ, ascendens and descendens; 3, cavity of right auricle; 4, auriculo-ventricular opening; 5, 5, tricuspid valves; 6, cavity of right ventricle; 7, opening leading to pulmonary artery; 8, pulmonary artery; 9, pulmonary valves.

The *aorta* (10, Fig. 5; 18, Fig. 8) branches and subdivides into a great number of large arteries leading to the head, arms, trunk, lower extremities and internal organs. These arteries again branch and subdivide a great many times, until they are reduced to only $\frac{1}{2000}$ of an inch in diameter. They are much smaller than the finest hair, and can be seen only by a magnifying-glass. They



Fig. 7. Diagram of Right Side of Heart, with Tricuspid Valves Closed and Pulmonary Valves Open.

lie so closely together that the point of a needle cannot be thrust into any part of the body without wounding a greater or less number of them. The circulation of the blood in the capillaries may be beautifully seen by placing the web of the foot of a living frog under a microscope magnifying about 400 diameters, when all the little capillaries, with the blood-corpuscles rapidly coursing through them, may be seen, as in Fig. 11. If the frog is not allowed to breathe for a moment the circulation in the capillaries stops, to begin again when respiration is resumed. In these capillaries the system veins begin by little rootlets which flow together into minute vessels, these into small veins, these into larger, and these again into still larger, until all are collected into the two great trunks, the venæ cavæ ascendens and descendens, which, as we have seen, empty the impure blood collected from the body into the right auricle of the heart.

The heart is enclosed by a serous membrane, the *pericardium*, which forms a kind of a double bag. The inner layer of the membrane is closely attached to the heart, the outer layer being free. Between the layers is a space, containing an ounce or two of fluid, which is secreted by the membrane to lubricate its surfaces, so that the movements of the heart will not cause friction and consequent inflammation.

The heart is lined by a delicate membrane, the *endocardium*, folds of which form the valves at the openings leading from the auricles into the ventricles, and from the ventricles into the arteries.



Fig. 8. Diagram of Right and Left Sides of Heart.

1, 2, 3, 4, 5, 6, 7, 8, same as Fig. 5; 10, pulmonary artery leading to the right lung; 11, branch of pulmonary artery to the left lung; 12, pulmonary veins from left lung; 13, pulmonary veins from the right lung; 14, cavity of left auricle; 15, left auriculo-ventricular opening; 16, cavity of left ventricle; 17, opening into aorta; 18, aorta.

The muscular walls of the auricles (Figs. 8, 9 and 10) are very thin. As they have little work to do, it is not necessary that they should be strong. The walls of the right ventricle (Fig. 10) are much thicker than the auricular walls, for the reason that it has to force the blood through the capillaries of the lungs, while the auricle has to force the blood into the ventricle only. But the walls of the left ventricle (*h h*, Fig. 9) are much thicker than those of the right, for the reason that it has many times its amount of work to perform. The right ventricle has to send the blood only to the lung, while the left has to send it over the entire system—from the crown of the head to the tips of the fingers and toes, and to all the organs, the brain, liver, stomach, muscles and bones.

Diseases of the Heart.

The heart, in health, is a most wonderful and beautiful mechanism. It performs its work quietly and regularly, day and night, sleeping and waking, year after year, never stopping for a quarter of a second. But, like all parts of the body, it is subject to disease and injury, and, when out of repair, may cause the most distressing symptoms, and, not unfrequently, sudden death.



Fig. 9. Showing Right Side of Heart.

a, *b*, Columnæ carneæ; *c*, cavity of righ auricle; *d*, *d*, openings of pulmonary veins into left auricle; *g*, semilunar or aortic valves; *f*, aorta; *h*, *h*, muscular walls of right ventricle.

The diseases of the heart are many. The enveloping membrane, the *pericardium*, may become inflamed, when the disease is known as *pericarditis*, signifying "an inflammation around the heart." Or the lining membrane may become inflamed, which is called *endocarditis* (*endo*, within; *cardium*, the heart, and *itis*, inflammation), "inflammation within the heart." In consequence of pericarditis, the fluid around the heart may be greatly increased, so as to interfere with its movements. This is dropsy of the heart. Or the smooth surfaces of the *pericardium* or enveloping membrane may become agglutinated together, so that at every contraction the heart must lift the whole weight of the diaphragm. Or, from endocarditis, the openings between the cavities may be almost closed up, or the valves shortened or deformed so as not to close perfectly, and hence permit the blood to regurgitate, like the leaky valves of an old pump, which permits most of the water to flow back into the well, instead of raising it to the spout, no matter how hard one may work at the handle. A heart with the openings greatly contracted by disease may be likened to a pump with a spout too small. It is easy to understand how, if the openings of the heart are contracted, as they sometimes are, to the size of a goose-quill, or if the valves leak badly, permitting the blood to regurgitate, the work of the heart is greatly increased. If a schoolmaster should become a blacksmith, by work at the forge he would soon increase the muscles of his arms to double their former size. So, when by damaged valves or contracted orifices the heart is called upon to do more work, the first effect is to increase the thickness of its muscular walls. By this cause the heart sometimes becomes three or four times its normal size.

This condition is called *hypertrophy*. But there is a limit to muscular development, and after a time the walls begin to weaken and to dilate. They are no longer strong enough to force all the blood out of the cavity when it contracts upon it. More and more blood remains in the ventricle after contraction, until the day comes when, perhaps, in a moment of excitement, the ventricle becomes filled with blood, and, the muscle of the heart not being strong enough to force it out, there is a sudden paralysis of the heart from exhaustion of the heart muscle, and death immediately ensues, the patient suddenly falling down dead. Or the blood may be dammed back in the veins, because it cannot get through the heart. In this way death may take place from congestion of the lungs. When the lungs are congested, there is a great difficulty in breathing. This is a common symptom of heart disease. The blood may be dammed from the heart back into the veins of the trunk and lower extremities. When this is the case, the feet and legs swell, from the watery portions of the blood escaping outside of the vessels into the tissues. Sometimes the swelling is very great. There may be dropsy of the abdomen in consequence, or the liver and kidneys may be congested, and their functions impaired.

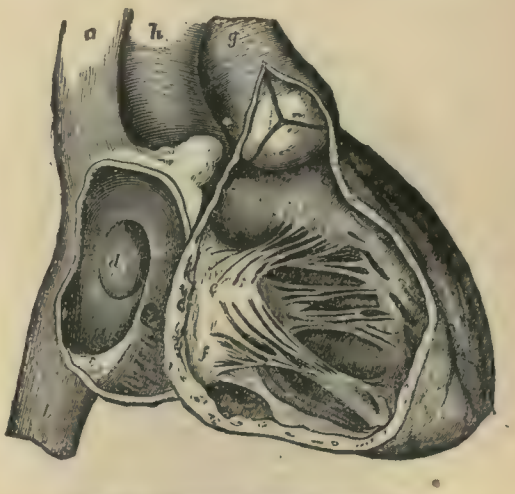


Fig. 10. Showing Right Side of Heart.

a, *b*, Venæ cavæ; *d*, left auricle; *e*, *f*, tricuspid valves; *g*, pulmonary artery; *k*, aorta.

Sometimes fat is deposited in the muscular fibre of the heart in place of the true muscular substance. This condition is known as *fatty degeneration*. It always greatly weakens the power of the heart, and its walls dilate. Sometimes the heart is paralyzed from this cause, and, occasionally, when one part is more degenerated than another, the walls of the heart may be ruptured by its own contraction upon a quantity of blood. Death in either case, of course, immediately takes place.

Palpitation of the heart is not a disease proper of the heart. It depends upon a derangement of the nervous system, just as a trembling hand or jerking eyelid is due to a fault of the nerves and not to any disease of the hand or of the eyelid. There is nothing dangerous in palpitation of the heart.

Neuralgia of the heart is a disease of the nervous system, and not of the heart.

Most lesions of the valves of the heart are caused by inflammation of the lining membrane, *endocarditis*, during an attack of *inflammatory rheumatism*. If the patient does not die during the time of the acute inflammation, he is likely to suffer from heart symptoms after a few years, by which time the valves become so deformed or the orifices so contracted as to interfere with the function of the heart, and the patient becomes aware, for the first time, of his condition. Valvular disease may have other causes than rheumatism.

Diagnosis.—A skilled physician is able, by *percussing* or tapping the chest wall, and taking note of the sounds thus produced, to say positively whether the heart is enlarged or not; and, by listening to the beating of the heart, he can tell certainly whether there is any leakage at the valves, and say with confidence which pair of valves are at fault, or whether there is or is not a contraction at any of the orifices. Where the valves leak, or the orifices are obstructed, there are certain hissing or blowing sounds, called *murmurs*, which, heard over different parts of the chest, and at different times with reference to the normal sounds of the heart, enable the educated and skilled physician to determine the character of the lesion, or to say that no disease at all of the heart exists.



Fig. 11.

Circulation of the Blood in the Foot of the Frog.

Treatment.—If one suspects, for any reason, a grave disease of the heart, he should go to some skilled physician in whom he has full confidence, and be examined. He will probably learn, as is generally the case, that there is no *organic* disease of the heart at all, and that the symptoms which occasioned the alarm, such as palpitation, are referable to a disordered state of the stomach or of the nervous system. The patient should not undertake to treat himself, if really suffering from valvular lesions of the heart, so that treatment had best be left to the physician whose advice is sought in the case. *Digitalis* is, perhaps, the most valuable remedy which exists for strengthening the heart's action. The body should be well nourished, the food of good quality and variety, and the meals taken regularly. The bowels should be kept regular, and no very severe exercise should be taken. A gentleman, a patient of the writer, suffering from valvular disease, together with great enlargement and dilitation of the heart, came very near death every Sunday night on account of difficulty of breathing, due to congestion of the lungs, from damming the blood back into the pulmonary veins, the left heart not having strength to empty the ventricle. It seemed strange to the patient that the distress came only on Sunday nights, but upon enquiry it was found that on the six week-days he took three meals a day, and on Sunday but two, the last of which was about 2 o'clock p. m. The full power of the heart, when well nourished, was required, in its damaged condition, for the performance of its functions, and the abstinence from food for a few hours so weakened its action as to make death imminent. Sunday night suppers were ordered, and thereafter Sunday night ceased to be an especial dread.



Fig. 12.

Red and White Blood-Corpuscles Highly Magnified.

THE BLOOD.

The blood is a compound fluid. In man, and all the higher order of animals, it is of a red color; in some of the lower forms of life it is colorless. The quantity in man is about one-eighth that of the weight of the body. The vessels of a man weighing one hundred and forty pounds would contain nearly eighteen pounds of blood. The office of the blood is not alone to carry nutriment to the tissues to assist in their repair, but is also to carry out of the body the products of waste—the ashes, so to speak, of the oxidized tissues which have been burned up or consumed in the production of force and animal heat. If a small part of a drop of blood be examined under a microscope, it will no longer present the appearance of a simple red fluid, but little circular bodies with a yellowish-red

tinge will be seen, and, if magnified two hundred and fifty times, will present the appearance shown in the lower part (*A*, *A*) of Fig. 12. These are the red corpuscles. They are little flattened circular bodies about $\frac{1}{3200}$ of an inch in diameter, and not more than one-quarter as thick. It would take 120,000,000,000 of them to make a cubic inch. The flat surfaces are somewhat concave, so that the centre of the corpuscle is its thinnest part. If examined with a lens magnifying 1,000 times, the corpuscles will present the appearance of *B*, *C*, *D* in the figure. After standing a few minutes the flat surfaces of the corpuscles are inclined to stick together, and so arrange themselves in the form of a roll of coin (*D*, *D*). If treated with a drop of vinegar they become clear (*K*). If instead of vinegar a drop of water is added, they swell up (*E*), and become globular. If exposed to the air for a time, they become shrivelled (*H*, *H*) and irregular. In the lower part of Fig. 12 are to be seen two bodies (*a*, *a*) which do not look like the other corpuscles. They are larger in size, globular in shape, present a granular appearance, and are of a white color. They are known as the *white corpuscles*. Only one white corpuscle exists to four hundred of the red. The coloring matter of the blood is in the red corpuscles. When they are removed a clear fluid remains.

If a quantity of blood be drawn into a bowl from the veins of an animal, it will be, at first, quite fluid, but in a few moments will become thick like a mass of jelly. This mass is called a clot, and the process *coagulation*. If allowed to stand for a day or two the clot will continue to contract, and will be found at the end of that time in the bottom of the bowl, covered with a clear liquid called the *serum*.

If, as soon as the blood is drawn from the vein, it be whipped with a bunch of twigs, a white stringy substance, like the *gluten* obtained by washing flour, is found to cover the twigs, binding them together. This substance is called *fibrin*. Blood, subjected to this whipping, does not form a clot, for the reason that the coagulating substance, fibrin, has been removed upon the twigs. If this whipped or *defibrinated* blood be now permitted to stand, the red corpuscles settle to the bottom of the bowl, while the clear serum remains on top. These three constituents of the blood, *fibrin*, *serum* and *corpuscles*, are rendered plain to the sight, but they are made up of many other substances, such as *albumen*, *fat*, *sugar*, *soda*, *salt*, *iron*, *lime*, *magnesia*, *water*, *carbonic acid gas*, *oxygen*, etc., etc.

The serum and the fibrin are not separated in the living blood, but together form the *plasma*. The office of the plasma is to nourish and rebuild the tissues and to carry the products of waste and combustion to those organs—such as the liver, kidneys and skin—whose function it is to separate them from the blood and carry them out of the body. The particular office of the corpuscles is to carry oxygen from the lungs to the tissues and carbonic acid gas from the tissues to the lungs, there to be exchanged for oxygen.

Diseases of the Blood.

The plasma of the blood is replenished in its nutritive constituents by the food taken at frequent intervals. Water is necessary to render the blood sufficiently fluid, and to hold the other constituents in solution. The presence of certain chemical substances is also essential. Lime, iron, and certain other minerals, must also find a place. Besides these conditions, certain constituents manufactured in the body itself, as liver sugar and the corpuscles in normal quantity, are necessary to health. Water is more essential than food, and oxygen more than water. One deprived of food dies from impoverishment of the blood; if deprived of water, death takes place much sooner; but if deprived of oxygen, death ensues within five to eight minutes. About a ton and a half in the shape of food and drink is added to the blood of an ordinary man during the year. As there is the same amount of waste, a ton and a half of material, therefore, must be carried out of the body through the blood during the same time. Some of the products of oxidation, as *urea* and *carbonic acid gas*, are very poisonous to the nervous system. Certain organs, as the kidneys, skin and lungs, are designed especially to remove these poisons from the current of the blood, and carry them out of the body. If, through disease of these organs, they fail to perform their functions, the blood becomes highly charged with the poison, and, unless speedily relieved, death is the result. If the lungs fail to eliminate the carbonic acid, death results within a few minutes. If the kidneys fail to remove the urea, death must follow in a short time. The same is true if the skin fails in its office.

From the above it may readily be seen that the disorders of the blood are many. There may be too much blood, when the condition is called *plethora;* or too little, when it is called *anæmia;* or it may contain too much water, or too little; or too many red corpuscles, or too few; or the plasma may be deficient in tissue-building constituents; or the blood may be poisoned by the retention of carbonic acid and urea; or it may contain living germs.

Treatment.—A considerable quantity and wide variety of food should be taken regularly. A sufficient amount of water and fluids should also be taken. Frequent baths and a reasonable amount of exercise are advised. The sleeping-room should be well ventilated, and plenty of fresh air supplied. Where the blood disease is due to disease of some particular organ, the latter requires primary attention.

THE RESPIRATORY ORGANS.

It is essentially necessary to the life of all animals that the nutrient fluid should be carried to all parts of the system, and since the functional activity of the nervous and muscular tissues, and all tissues, is dependent upon their oxidation, it is also necessary that oxygen should be carried to and brought directly in contact with every fibre and cell in the whole body. This implies the introduction of air. It is necessary in every animal, moreover, to keep up the temperature or body heat to a specific point. This is also accomplished by oxidation or burning either the disintegrating material which is passing to waste, or the combustible substances, such as sugars and fats, found in the blood.



Fig. 13. Head and Gills of the Menobranchus.

As we saw in the early part of this article, all organic material, at its death and combustion, gives rise to two products, *carbonic acid* and *water*, and we have seen by experiment that these are the products alike of the burning candle and the oxidizing tissues of a living man. These products of combustion of the tissues are poured into the current of the blood. But the conditions of life are such that *carbonic acid gas* acts as a poison in the system, and means must therefore be provided for its removal. The introduction of life-giving oxygen into the system and the removal of the poisonous carbonic acid are accomplished by the same mechanism, the breathing apparatus.

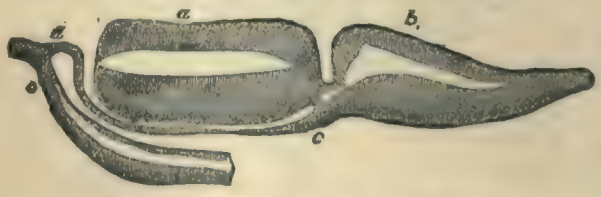


Fig. 14. Swimming-Bladder of the Fish.
a, *b*, Air chambers; *d*, *c*, wind-pipe; *o*, œsophagus.

THE LUNGS.

The *breathing apparatus*, or mechanism by which oxygen is introduced into, and carbonic acid is removed from the blood, in all forms of life, consists of a thin membrane so arranged as to permit the blood to flow upon one side of it, while the other side of the membrane (which must be moist) is in contact with the air. The oxygen gas of the air, having a greater *affinity* or attraction for the blood corpuscles than the carbonic acid gas, passes, therefore, through the thin membrane into the blood and displaces the carbonic acid gas, which passes out through the membrane into the air. The membrane, or breathing apparatus, in all cases, is the *skin*, or some extension, reduplication or modification of it, as the *mucous membrane*.

In the lower forms of aquatic life, and in certain worms, which are always moist, the skin serves the full purpose of lungs in purifying the blood, and no special organs of respiration are required. The moist skin of the frog is so delicate as to serve this purpose. We may remove its lungs, and it will continue to live and *breathe*, so to speak; the heart will continue to beat, and the blood to circulate and be purified so long as the skin is kept wet. But if allowed to dry, so that the exchange of gases can no longer take place through the skin, the animal soon dies "from the want of breath."

In fishes, the gills, which are covered by a delicate membrane, take the place of the lungs. There is a rich plexus of blood-vessels on one side of this membrane, while the other side is bathed in water. Oxygen is held in solution in the water, and is appropriated by the blood, while carbonic acid is exhaled through the membrane. Humboldt placed fishes in water which contained 20 per cent of air in solution, this consisting of 29.8 parts of oxygen, 66.2 parts nitrogen and 4.0 carbonic acid. After the fishes had remained in it a due time, analysis showed but 2.3 parts oxygen, while the carbonic acid had increased to 33.8 parts, showing the ordinary results of respiration.



Fig. 15.
Lungs of Reptile.

In the menobranchus the gills (Fig. 13) are external feathery tufts on the sides of the neck. Each filament consists of a fold of mucous membrane connected with that of the pharynx, and contains a net-work of capillary blood-vessels. Respiration takes place as described in the above paragraph.

But the first approach to the true lung is seen in the swimming-bladder of fishes. In the carp there is, in its double-chambered swimming-bladder (Fig. 14), an approach to the double lungs of the higher order of animals. It is connected by means of a wind-pipe, *d*, *c*, with the œsophagus, so that the fish is enabled at will to increase or diminish the amount of air in the chambers. While this is a rudimentary lung, its real use is to vary the specific gravity of the fish, by compression or rarification of the included air. As explained above, the gills in fishes fill the office of the true lung.

The lungs of the reptile present a sack-like form (Fig. 15). The two lungs are not equal in size, one, *A*, being fully developed, while the other, *B*, remains in a more or less rudimentary state. There is a pulmonary artery, *c c*, which brings the impure blood to the lungs, where it is broken up into minute capillaries and distributed over the walls of the membranous bag, where the blood is purified and sent through the pulmonary vein, *d d*, back to the heart. The air is taken into the sack through the trachea, *a*, by a kind of swallowing process, and is forced out again by contraction of the abdominal muscles.

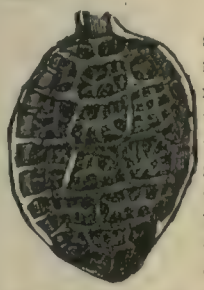


Fig. 16. Lungs of the Frog.

The progress from the simple sack, as shown in the swimming-bladder of the fish and the lungs of the reptile, to the million-chambered respiratory organs of the higher animals, is well illustrated in the lungs of a frog (Fig. 16), which has a number of imperfect membranous partitions dividing up the sack into many chambers, with the effect to greatly increase the respiratory surface. If the surface of the membrane forming the walls of the sack amounted to two square inches, the effect of the fifty or sixty partitions would be to increase the surface of the respiratory membrane to perhaps fifteen square inches, so that the lung with the partitions is capable of purifying seven times more blood per minute than the simple sack without the partitions.

In man the trachea, or wind-pipe, divides into two bronchial tubes, one of which enters each lung, and then branches like a tree. The terminal tubes are only about $\frac{1}{60}$ of an inch in diameter. Upon the sides of these minute tubes the air-cells open; sometimes single ones and sometimes many cells communicate with one another (Fig. 17). Such a tubelet, with the air-cells thus clustered upon it, is a miniature representation of the lungs of the frog. The air cells vary in size from $\frac{1}{70}$ to $\frac{1}{300}$ of an inch in diameter. It is said that each terminal bronchus has 20,000 air-cells clustered upon it, and that the total number in both lungs is more than 600,000,000, the walls of which, if united and spread out in one continuous sheet, would present a surface of 1,500 square feet. The cell walls are formed of an exceedingly delicate membrane, covered by the richest plexus of capillary blood-vessels in the economy, which lie so thickly together that the spaces between them are less than their own diameters. Figure 18 represents five air-cells, with the capillary blood vessels distributed upon their walls. These capillaries are only $\frac{1}{3000}$ of an inch in diameter, requiring 200 of them to equal the size of a cambric needle. As the cells are close together and the partition walls of incomprehensible thinness, the little capillaries passing between them are brought in communication with the air on both sides. The blood corpuscles are obliged to pass through the little vessels in single file, and so, with air on both sides, they rapidly and completely exchange their poisonous carbonic acid gas for pure life-giving oxygen, and change their color from blue to crimson. Then, by the contraction of the abdominal muscles, the chest walls, and the elastic walls of the air-cells themselves, the impure air is forced out of the body, and by a new inspiration the lungs are refilled with pure air. This in turn loses its oxygen to the blood, becomes impregnated with carbonic acid, and is expired, and the lungs again refilled with pure air.

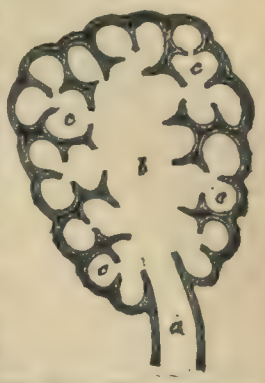


Fig. 17. An Ultimate Bronchial Tube with Clustering Air-Cells.

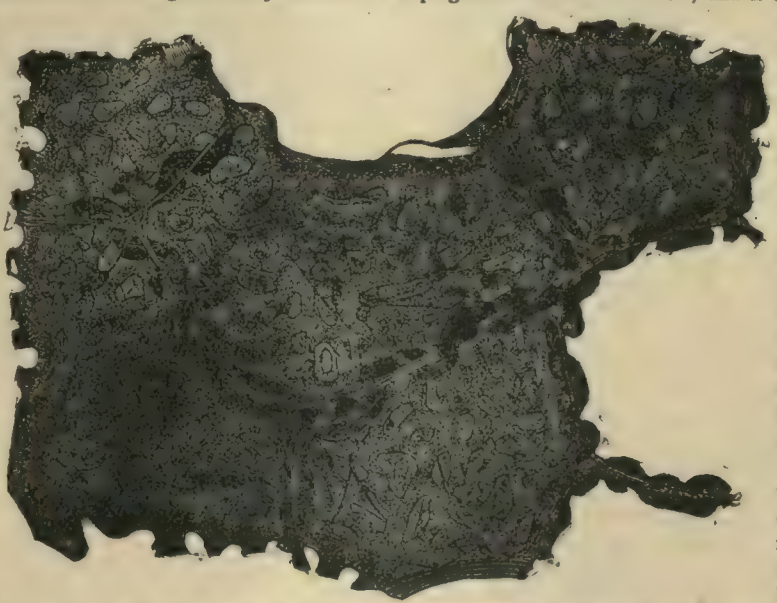


Fig. 18. Showing a Portion of Five Air-Cells, with the Capillaries Upon Cell Walls (Greatly Magnified).

The Mechanism of Respiration.

The minute anatomy of the pulmonary lobule and the physiology of the respiratory membrane having been explained, it remains only to recite the gross anatomy of the respiratory organs, and the mechanism by which the lungs are filled and emptied of air.

The nose may be very properly considered the first of the respiratory organs. By its *turbinated* bones and the numerous cells connected with its cavity, a considerable surface is produced, all of which is lined by the nasal mucous membrane; over this surface the air passes, and is warmed and cleansed from dust before passing into the lungs. At the entrance of the nostril are a number of stiff hairs, which act as a barrier to dust. Within the nose resides the sense of smell, which informs us of the quality of air we are breathing. The cavities of the nose communicate with the throat by two

openings. (See Fig. 1.) Except during the act of swallowing, the *epiglotis*, or lid which covers the opening into the larynx, stands wide open, as shown in the cut, while the gullet below the larynx remains closed, so that there is a continuous tube from the nostrils, into the lungs.

THE LARYNX is a kind of a triangular box placed at the top of the *trachea*, or wind-pipe, and is made up of rigid and unyielding rings of *cartilage* or gristle. The larger end of the larynx is placed upward, and across the superior opening are stretched four ligamentous bands covered by a most delicate mucous membrane. These bands are the *vocal cords*. The two upper cords are called the *false*, while the two lower bands are called the *true vocal cords*. To the vibration of these latter the voice is due. In front they are attached to a fixed point, the *thyroid cartilages*, which project forward on the neck, especially in men, and are called "*Adam's apple.*" Behind they are attached to movable pieces of cartilage, which are controlled by little muscles, and can be so moved as to separate the cords from each other, as seen in inspiration (*A*, Fig. 19, or Fig. 22), allowing the air a free entrance into the trachea. In expiration the cords fall together, leaving only a narrow slit (*B*), through which the air passes out. When an attempt is made to produce a sound there is a great change in the conformity of the larynx; the vocal cords are approximated more closely together and put upon the stretch. The air from the lungs is then forced through the narrow slit, causing the free edges to vibrate, at the same time forcing them slightly apart in the centre, leaving a narrow oval slit, *C*, as shown in Fig. 19.



Fig. 19. The Vocal Cords.

A, as seen in inspiration; *B*, as seen in expiration; *C*, as seen while uttering a high-pitched sound.

Below the larynx is the trachea, a long air-tube, composed of rings of cartilage bound together by connective tissue and lined with mucous membrane. The trachea divides into two tubes called the *bronchia*, one of which leads to each lung, and there subdivides and branches like a tree into the ultimate bronchial tubules which open into the air-cells.

The lungs are contained in the cavity of the *chest* (*A*, Fig. 20). This cavity is separated from the cavity of the abdomen (*C*) by an arched muscle (*B*) called the *diaphragm*.

The lungs are placed one upon each side of the heart (Fig. 21). Each lung is enclosed in a double membranous sack called the *pleura*, one fold of which is closely attached to the substance of the lung, while the outside layer lines the chest wall. Between the two layers is a cavity which contains a little fluid called *serum*, which is secreted by the membrane, and serves to lubricate its surfaces, so that they glide smoothly over each other with every movement of the lungs. The right lung is divided into *three* (6, 7, 8) and the left into *two* (1, 2) lobes.

Movements of Respiration.

When the diaphragm contracts, it approaches a straight line across the body; at the same time the costal muscles elevate the ribs, which are also, because of their direction, carried outward. This increases the size of the cavity of the chest. The descent of the diaphragm increases the length of the chest-cavity, while the movement of the ribs increases its breadth. This causes a vacuum in the chest-cavity, and the outside air rushes in through the trachea and dilates the air-cells until the cavity is filled. This is known as *inspiration*. The diaphragm and costal muscles now relax, the ribs return to their place, thus narrowing the chest, while the abdominal muscles contract, forcing the stomach and liver upward against the diaphragm, which rises into its



Fig. 20.

A, cavity of chest; *B*, diaphragm; *C*, cavity of abdomen.

arched position, decreasing the length of the chest-cavity. These movements, together with the elasticity of the air-cells, force the contained air out through the trachea, emptying the lungs. This act is called *expiration*, which is followed by and alternates with the act of *inspiration*, and comprises the phenomenon of respiration.

DISEASES OF THE RESPIRATORY ORGANS.

Diseases under this head may be divided into those affecting the mucous membrane lining the air-passages, those affecting the serous membrane covering the lungs, and those affecting the substance of the lung itself.

Cold—Catarrh—Bronchitis.

CORYZA, or *cold in the head*, is an acute inflammation of the lining membrane of the nose. The eyes, in this disease, are also frequently inflamed and red, and the tears flow over the face. The symptoms begin with an itching or tingling sensation

in the nose, which is followed by sneezing. A slight fever accompanies these symptoms, and not unfrequently there is more or less headache.

Treatment.—Twenty or twenty-five drops of laudanum should be taken at bed-time, the first evening after the symptoms are noticed. Not unfrequently this will effect a cure. If not, another dose may be taken the following evening, and this repeated the next. If the cold is severe the laudanum should be taken night and morning until relieved. It is also well to take four grains of quinine night and morning. Instead of laudanum, one-sixth of a grain of morphine, or a full dose of Dover's powder, will serve the purpose equally well. Treated in the beginning, nothing is surer than a perfect cure in from twenty-four to forty-eight hours, but if not effectually treated, it is apt to extend to the larynx and become a severe bronchitis, or eventuate in a chronic, low-grade inflammation of the nasal membrane, called *catarrh*.

Catarrh.

CATARRH is a name that properly applies to all inflammations of any part of the mucous membrane, such as catarrh of the stomach or of the bladder, but by common usage, unless qualified by another word, has come to mean a chronic inflammation of the nasal mucous membrane. It is a very troublesome disease, and is often very difficult to treat. Patients are frequently seen who have suffered from the disease for years. The inflammation is apt to extend through the eustachian tube to the ears, and sometimes with not only the effect to impair the hearing, but to quite destroy it. The odor is, in bad cases, most penetrating, rendering the patient very offensive to his associates.

Treatment.—In the beginning the most effective treatment is that recommended for *coryza*. Later, tonics should be given. Quinine in two-grain doses, three times a day; laudanum in small doses and iodide of potassium in five-grain doses three times a day. In the beginning powders and solutions snuffed up the nose usually do harm, and it is a question whether they ever do good in any stage. The most effective treatment for a chronic case is, perhaps, a change of climate. The writer has known some excellent cures to result from a residence in Northern Wisconsin, or in the region of Lake Superior.

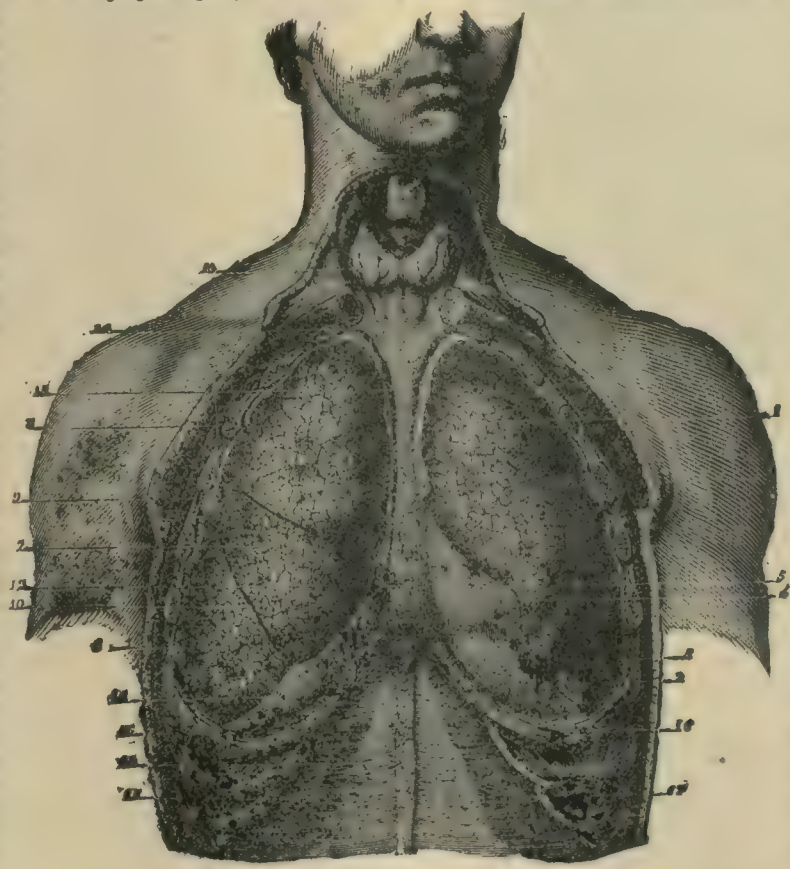


Fig. 21. Showing the Lungs in Situ.

1, 2, Upper and lower lobe of left lung; 6, 7, 8, upper, middle and lower lobe of right lung; 5, space occupied by the heart.

Acute Laryngitis.

ACUTE LARYNGITIS is an inflammation of the mucous membrane lining the larynx. It is attended with a cough and hoarseness, and frequently with much difficulty of breathing. The hoarseness is due to inflammation and swelling of the vocal cords. Medicinal treatment should be the same as that recommended for *coryza*. At night the throat may be bound with a bandage wrung out of cold water. Quinine should be taken in four-grain doses three times a day.

Disease of Vocal Cords.

It not unfrequently happens that speech, or the power of phonation, is lost in consequence of disease or injury of vocal cords, or of ulceration or swelling of the surrounding parts. Within the last few years a little instrument, called a *laryngoscope*, has been invented, by which a view of the larynx and vocal cords may be obtained. It consists of a little round mirror, about the size of a copper cent, fastened at an angle upon a small stem or handle. This is introduced into the mouth, as shown in Fig. 22, the tongue having been drawn forward. Then, by the aid of a bright light, placed beside the patient, and reflected from a mirror worn upon the forehead of the physician, the rays are thrown upon the little mirror in the mouth of the patient, from which it is again reflected down to and illuminates the larynx, the image of which is reflected back into the little mirror in the mouth of the patient. In Fig. 22 the image of the larynx and vocal cords is shown as seen by the physician. By this means a physician skilled in the use of the instrument is able to examine an ulcer of the larynx as critically as he might a burn on the hand.

In case of loss of the voice, not clearly due to an acute *cold*, or in case of hoarsenesss of long standing, such an examination should be sought directly, lest the voice may become permanently impaired or destroyed. Sometimes one or both of the vocal cords may be paralyzed. As the symptoms may be due to different causes, it is best not to undertake self-treatment, but go at once to a skilful physician.

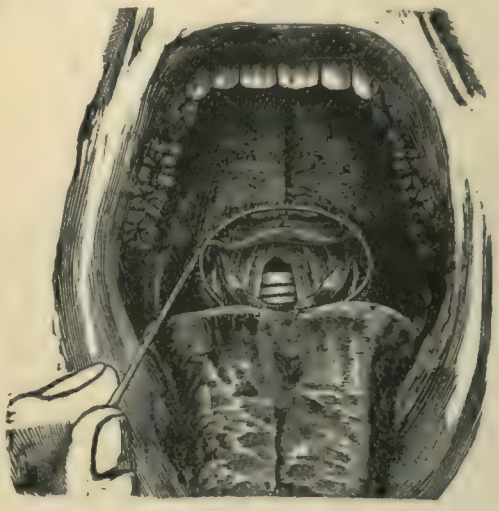


Fig. 22. Showing the Manner of Using the Laryngoscope, with the Image of the Larynx, Epiglotis and Vocal Cords in the Mirror.

Bronchitis.

BRONCHITIS is an inflammation of the lining membrane of the trachea and bronchial tubes. It may be either acute or chronic. If acute, there will be a slight fever and considerable cough. The treatment should be the same as that advised for *coryza*.

Chronic Bronchitis usually eventuates from an acute attack. The disease may be of years' standing. Those cases of death of elderly people from exhaustion, attended by cough and expectoration, and accredited to consumption, may usually be put down as bronchitis. Consumption rarely attacks persons after 40 or 45 years of age.

Treatment should consist partly in good living and warm dressing. Any of the bitter tonics, with iron, may be taken, together with some form of opium to relieve the cough. Iodide of potassium in five-grain doses, with two grains of carbonate of ammonia, taken after meals, will be found very useful.

Pertussis—Whooping Cough.

WHOOPING COUGH is an infectious disease, attacking the mucous membrane of the air passages. It attacks children, not exclusively, but chiefly. Among the first symptoms the child appears to have taken cold. Slight fever, suffused eyes, running nose and a cough make up the early symptoms. The cough is worse at night, and the temperature and pulse are higher. At this time there is nothing to distinguish it from an ordinary cold. This stage may last but a few days or be protracted over a period of two weeks, when these symptoms are changed for a distinct paroxysmal cough, having more or less of a metallic ring. The child makes a peculiar noise during inspiration. There is more difficulty in inspiration than expiration during the paroxysm. The paroxysm over, the patient seems to be well. The number of paroxysms during twenty-four hours varies from ten to twenty in ordinary, to from seventy-five to one hundred in aggravated cases. During the cough the child becomes black in the face, and blood may be forced from the nose, throat or lungs, and at times from the ears. The little patient soon learns to dread these attacks, and seeks something to seize upon for support during the paroxysm. If lying in bed, he springs up and perhaps stands upon his feet, the tongue being thrust out of the mouth during the cough. The material expectorated is a clear, tough mucus. In young children the nurse will be obliged to remove this mucus with a handkerchief upon the finger. It seems sometimes as if the patient would die of strangulation before it can be removed. If the paroxysms are frequent the front teeth may chafe the under part of the tongue so as to form ulcers which greatly annoy the patient. An uncontrolable diarrhœa may set in, or the brain may become affected, when convulsions or stupor make their appearance.

Treatment.—Cough medicines as a general thing disturb the stomach without mitigating the cough. Small doses of the syrup of ipecacuanha may do good. The patient should be kept warm with good flannel underclothing. It is not advisable to keep him shut indoors, but if the weather is at all propitious, it is perhaps better that he should remain out in the fresh air.

Tonics are needed. Small doses of quinine or cinchona mixture will do good. Three or four drops of tincture of belladonna at bed-time may give the patient a good rest.

If the child has not been vaccinated, it will be well to vaccinate him, for vaccina seems to favorably modify the symptoms of whooping cough.

Asthma.

ASTHMA is caused by a spasm of the muscular fibres of the small bronchial tubes, which obstructs the outward flow of air from the lungs; hence the great distress for want of breath, and the loud wheezing sounds. The disease is of nervous origin, and is sometimes hereditary. It is generally worse at night.

Treatment.—There are many remedies which for a time relieve the bad symptoms, and a change of climate is almost always attended by relief. An attack may be brought on by any irritating smoke, or vapor, or dust contained in the breathing-air. The emanation from a feather pillow is sufficient in some persons to produce a paroxysm. The writer has found the following prescription of use in a greater number of cases than any other. It usually cuts short the attack within a few hours:

Iodide of potassium,	90 grains.
Carbonate of ammonia,	60 grains.
Syrup of orange-peel,	1 ounce.
Simple syrup,	1 ounce.

Mix.

Take a teaspoonful every two to four hours until relieved.

Pleurisy.

PLEURISY is an inflammation of the *pleura*, or the membrane which envelopes the lungs. It is usually confined to one side, the left more frequently than the right. Sometimes, though very rarely, both sides are attacked at the same time. The at-

tack begins with sharp pains in the side, and in the region of the nipple. Soon it becomes impossible to take a deep inspiration on account of the severe pain caused by friction of the two layers of the inflamed membrane. Considerable fever is present. Examination by a physician will be necessary to determine whether the symptoms are due to *pleurisy* or *pneumonia*.

Pleurisy is not usually a grave disease. The patient generally recovers within a few days. Sometimes, however, a great effusion of fluid takes place in the pleural sack, compressing the lung so that, if the fluid is not soon absorbed, the lung may become permanently disabled. Sometimes the effused fluid becomes purulent.

Treatment.—Strips of adhesive plaster, an inch wide and from fourteen to sixteen inches long, may be applied by sticking one end over the spine and carrying the strip around the body upon the affected side, to act as a splint, thus preventing any movement of the inflamed parts. A quarter of a grain of morphine may be given, or, instead, twenty-five drops of laudanum. This may be repeated every hour or two until relieved from pain. If effusion takes place the treatment should be left to the advice of a physician.

Pneumonia.

PNEUMONIA, *lung fever, winter fever, or inflammation of the lungs*, is an inflammation of the substances of the lung. But a single lobe of the affected lung is usually attacked. The disease rarely attacks both lungs at the same time. In such a case a *double* pneumonia is said to exist. The lower lobes (8 and 2, Fig. 21) are more frequently attacked than the upper (6 and 1) lobes.

An attack may occur at any season of the year, but the disease is prevalent in winter and spring. The attack begins with symptoms similar to those of pleurisy, congestion of the affected lobe rapidly supervening. The temperature rises, and the pulse beat and respiratory movements become more frequent. An exudation takes place into the air-cells of the affected lobe, completely filling them, solidifying the lobe and rendering that portion of the lung entirely useless. A very high fever ensues, and the patient becomes dangerously ill, and may remain in a critical condition for several weeks. In unfavorable cases death results in from ten to twenty days, from exhaustion. Occasionally the inflammation involves both lungs, or more than one lobe if but one lung is attacked; under such circumstances death may, in rare cases, result during the first or second day from suffocation.

Treatment.—In so grave a disease, a skilful physician should be called without delay, and his directions for treatment carefully followed. Good nursing is of great importance, and the most nourishing food must be given from the beginning, in order to guard against danger from exhaustion toward the close of the disease.

THE EXCRETORY ORGANS.

The name *excretory* is applied to those organs whose function it is to remove from the blood the elements of waste—the *ashes*, so to speak, of the oxidized tissues—which have been taken into its current during its passage through the capillaries. Besides the *lungs*, which act as excreting organs in so far as they remove from the blood carbonic acid gas and water, and the *liver*, which also eliminates from the blood certain poisonous excretions, there exist two other organs whose chief or exclusive function it is to purify the blood, by removing from its current the *debris* of the worn-out and oxidizing tissues. These organs are the *kidneys* and the *skin*.

The Kidneys.

The kidneys are two in number, placed in the abdominal cavity one on each side of the spinal column, on a level with the lower ribs. The kidney is shaped much like a lima bean. It is, in the adult, about four inches long, two inches wide, one inch in thickness, and weighs from four to six ounces. It is surrounded by a thick cushion of fat which protects it from injury. The concave margin, which presents a deep notch called the *hilum*, is turned toward the spinal column. At the hilum enter the blood-vessels and nerves and the excretory duct, called the *ureter*, which carries away the urine as fast as it is secreted, and empties it into the *bladder*, a membranous reservoir for holding it, until such convenient time as it may be voided.

On making a vertical section through the kidney (Fig. 23) from its convex to its concave border, it appears to be made up of two substances, an outside or *cortical* substance, and an inside or *medullary* substance. The cortical substance forms the greater part of the gland and occupies its surface. It is soft and dark-colored and contains numerous small red bodies, called *Malpighian bodies*, scattered throughout its substance. The medullary substance is of a pale red color and consists of thousands of little tubes arranged in pyramids (1 1, 2 2, 4 4, Fig. 23), called the *pyramids of Malpighi*. The little tubes, or *urinary tubules*, of which the pyramids are made up, are connected, one with each of the *Malpighian bodies*, from which they are gathered together in pyramids, and empty, by common ducts (5, 5, 5, 5), into a cavity (7) shown in the cut, and known as the *pelvis of the kidney*, from which the *ureter* (8) conducts the urine away to the bladder. Figure 24 shows the Malpighian bodies (1, 5, 6) greatly magnified; 3 is a branch of the renal artery, from which little branches (4, 4, 4) enter the little bodies and break into minute looped capillaries (5), which again unite, forming a vein (7, 7, 7), which passes out of the little body, branches and subdivides (8, 9), and finally again breaks up into capillaries (10) to nourish the substance of the kidney. From the Malpighian bodies extend the little tubes (2, 2, 2), which finally unite to form the pyramids.

It is in the Malpighian bodies and in the little urinary tubules that the urine is separated from the blood. The capsules of these little bodies, Mr. Huxley says, may be likened to a funnel, and the membranous walls of the little capillaries to very delicate filtering-paper, into which the blood is poured. A substance called *urea*, the ashes of the oxidized muscular tissue, and certain saline substances, among which are common salt and the phosphates and sulphates of potash, soda, lime and magnesia in solution, are filtered out of the blood, carried away by the little tubules (2, 2, 2) to the *pelvis* of the kidney, from which it flows through the *ureter* into the bladder, and

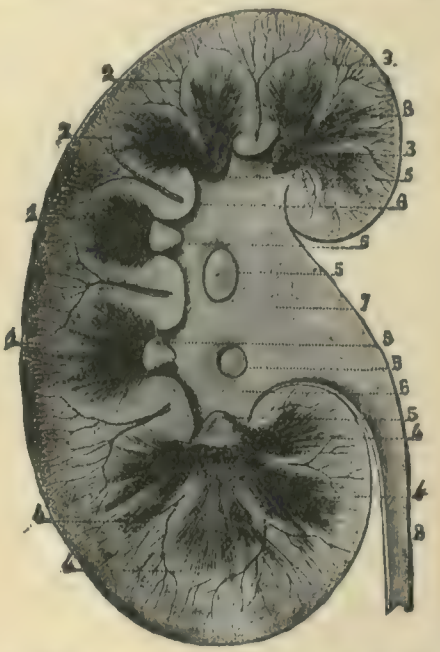


Fig. 23. A Longitudinal Section of the Kidney.

1, 2, 4, Pyramids of Malpighi; 7, cavity of the pelvis; 5, 5, mouths of the urinary tubules; 8, the ureter.

thence out of the body. Thus the function of the kidney is to purify the blood, by removing those poisonous elements of waste which cannot be removed by the other excretory organs.

DISEASES OF THE KIDNEYS.

The kidney is liable to disease, inflammation and degeneration, the same as other parts of the body. Anything which interferes with the proper secretion and elimination of urea by the kidney may properly be considered a disease. Sometimes irritation of the nerves of the kidney is sufficient to stop the secretion of urine for a considerable time. Mental emotions may diminish or increase the secretion. It has long been observed that the urine of an hysterical patient is excessive in amount and of a very pale color. During a fever the urine is small in amount and of a very high color. This is due to the great evaporation which takes place from the skin in consequence of the high temperature. Almost all the diseases to which the kidney is liable have been classed together and called *Bright's disease*, so called because Dr. Richard Bright first described one type of inflammation of the kidney, and almost all knowledge subsequently gained regarding diseases of the kidney, in which albumen is excreted, has been included under that name.

An inflammation may be either acute or chronic; may be confined to the *pelvis* or to the *urinary tubules*, or the substance of the kidney may be inflamed. An acute inflammation may cause death within a few days, or it may become chronic, or complete recovery may take place within a few weeks. A chronic inflammation may last for many years. Where the kidneys are so much diseased as to fail in removing the urea from the blood, nervous symptoms and convulsions rapidly supervene, caused by uremic poisoning. The kidneys failing in their duty, the stomach attempts to perform the work of the kidney; urine transudes into the stomach, and vomiting is set up. The vomited matter has a strong ammoniacal smell like urine.

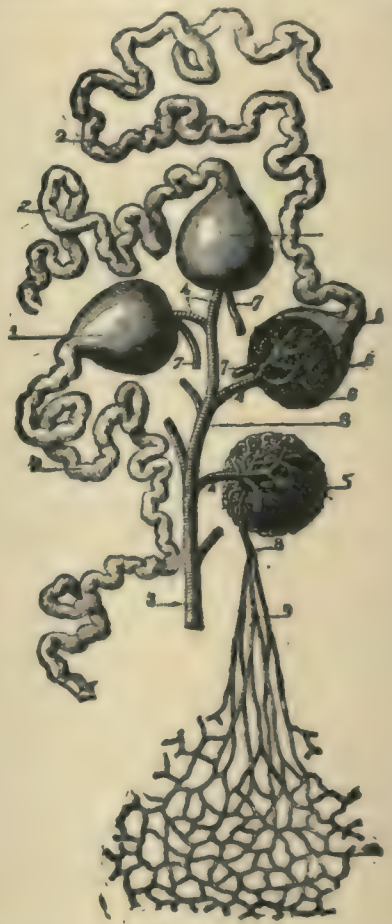


Fig. 24.

1, 6, 5, Malpighian bodies; 2, 2, 2, urinary tubules; 3, renal artery; 4, 4, 4, branches of renal artery; 5, 5, plexus of looped capillaries; 7, 8, 9, veins and venous plexus.

Treatment. — Where disease of the kidney is suspected a skilled and educated physician should be consulted. By an examination of the urine, he can ascertain whether or not a

sufficient amount of *urea* is being eliminated, whether nutritive constituents of the blood are being lost in the urine, and by the use of the microscope can tell, by the presence or absence of *epithelial casts*, whether the urinary tubules are diseased or not. Do not begin taking quack patent-medicines before you ascertain whether or not any disease exists. If disease of the kidneys is suspected, because of pain in the back, the chances are ten to one that no disease whatever of the kidneys exists. The trouble is, in nine cases out of ten, due to the muscles of the back, which may be affected with rheumatism or neuralgia, or simply strained. The writer has known a number of patients who supposed they were suffering from kidney disease because of backache, which was in reality caused by sleeping in an uncomfortable, sagging bed. With a new bed-spring, the backache and supposed "Bright's disease" disappeared. Certain quack patent-medicines have obtained a popular reputation by the fact that many people, who never had any disease of the kidneys, have recovered from a *backache* while taking the medicine; the cessation of the backache being in no way more dependent upon the medicine taken than upon the water drunk during the time. Pain in the back is not a symptom of kidney-disease. Swelling of the feet, dropsy of the face or loss of strength is most often the first symptom noticed by the patient, indicating that he is out of health. Not unfrequentiy failure of sight is the first symptom observed. The treatment should be left to the advice of a physician.

THE SKIN.

The skin is a hard, firm, elastic membrane which covers the body and serves to protect the soft parts from injury. It is also an *excretory organ*, exhaling, as it does, a large portion of the fluids given off from the body, besides being the chief means of maintaining the animal heat at an equable point. The skin is composed of two layers. The deeper one is called the *derma*, or *true skin*, and the outer layer the *epidermis* (Greek; *epi*, upon, and *derma*, skin). The *derma* is composed of strong elastic and inelastic fibres interlaced with each other; between the fibres in some parts is found much *adipose*, or fat tissue. In its substance are found also the sweat glands, sebaceous glands, hair follicles, lymphatics and nerves. The *epidermis* has no fibres, but is composed of several layers of cells placed one upon another. In the deepest of these is the pigment or coloring matter upon which depends the complexion. The hair and nails are appendages of the skin, and are but a modified form of the epidermic cells.

At the root of each hair is a little gland, sometimes two or more, called a *sebaceous* gland, which secretes an oily substance which lubricates the hair and surface of the skin. Coiled up in the deepest part of the true skin, or beneath it, are little tubes, which pass up through the entire thickness of the skin and open on the surface. They are called *sudoriparous* or sweat glands.

There is a constant exhalation from the skin, generally not visible, when it is called *insensible perspiration*. When visible, it is called *sensible perspiration*, or sweat. The *skin* excretes, perhaps, more water than the kidneys, amounting to between one and two pounds daily. Other excretions are also eliminated by the skin, so that it becomes one of the most important organs of the body.

Diseases of the Skin.

It is beyond the scope of this article to consider the rarer diseases of the skin, or to more than indicate the character and simpler means of treatment of the more common affections.

At one time most of the skin diseases were thought to be constitutional, and that the eruption was caused by attempted elimination of the poison. It is now known that most of the skin diseases are of local origin. A certain class are caused by vegetable parasites; another class by animal parasites; others by the local effects of heat or cold, or by the irritation of mechanical or chemical agents; others are in a measure dependent upon the general health, and others to specific poisons, which include syphilis and the eruptive fevers. The eruptive fevers will be treated under the head of fevers.

Phthiriasis—Lousiness.

There are three distinct forms of *pediculi*, or lice, which infest the human body: the *pediculus corporis*, or body-louse; *pediculus capitis*, or head-louse; and the *pediculus pubis*, or crab louse. Low and filthy people may be infested with any or all of these forms. Cleanly and respectable people are, therefore, never affected by *phthiriasis*, or the lesions caused by these *pediculi*, for if they come in contact with filthy people infested with either variety, and should by accident get lice upon the body or head, the fact is soon discovered, and the body rid of them before sufficient time has elapsed to produce the characteristic lesions or wounds. The favorite seat of the body-louse is about the hips or shoulders. They are seldom found upon the body when the clothing is removed, but may be found in the seams of the under-garments, where they also lay their eggs. The head-lice, by their bites and by the excoriations caused by scratching, not infrequently cause an eczema of the scalp which sometimes eventuates in abscesses. The crab-louse may cause a considerable eruption over the parts of the body infested by it. It is a small red louse, very difficult to see. It clings very firmly to the roots of the hairs and to the skin by means of crab-like claws. Like the head-louse, it deposits its eggs or nits upon the hairs.

Treatment.—In the case of *phthiriasis* from head lice, the hair of the head should first be thoroughly soaked in common kerosene oil, two or three times a day, and wrapped up in cloth for the first twenty-four hours. This will kill both the lice and their nits. It is never necessary to cut the hair. At the end of twenty-four hours the hair should be thoroughly washed, and the excoriated patches may be treated with a little oxide of zinc ointment. When caused by body lice the treatment is very easy. The clothing is to be removed and thoroughly boiled and carefully ironed, and a thorough bath given the body with soap and warm water. The excoriations readily heal.

The crab louse is more difficult to destroy. By a thorough application of one of the mercurial ointments, however, the object may be accomplished.

Scabies—The Itch.

THE ITCH is quite a different disease from *phthiriasis*, although due to a parasite. It is caused by a minute insect, the *acarus scabiei*, which bores into and underneath the epidermic layer of the skin. A good idea of its appearance under the microscope may be gained from the accompanying cut (Fig. 25). The female causes the eruption and itching by burrowing beneath the epidermis to deposit her eggs. The male is said never to penetrate the skin. The seat of the eruption is most frequent between the fingers, on the inside of the wrist and on the soles of the feet. Itching may be quite severe. It is a contagious disease, and is frequently contracted at school, where some unkept child introduces it. The disgrace attending it is such that it is becoming a rather rare disease.

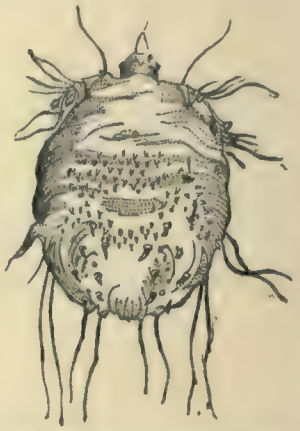


Fig. 25. The Acarus Scabiei, or Itch Insect.

Treatment.—First rub the patient all over with strong soap, and follow this by a hot bath, lasting an hour or more, after which rub him thoroughly with a sulphur ointment. The clothes are to be thoroughly boiled or baked.

Tinea Trichophytina—Ringworm.

RINGWORM is caused by a vegetable parasite. It begins by a small red spot, which enlarges with rapidity. As it increases at the border it heals in the centre. The margin is red and raised above the healthy skin. The centre of the patch is scaly and of a dirty yellow color. There may be several patches.

Treatment.—Red precipitate or citrine ointment well rubbed in will usually cure the disease.

Acne.

ACNE is a disease of the sebaceous glands at the roots of the hairs. There are several varieties, all of which consist of an eruption upon the face. The different forms are due to different causes, but in most there is a disturbance of the general health, frequently attended with dyspepsia and nervous derangements. A very common variety is the *acna puncta nigra*, or little black specks over the nose and face, due to little plugs of sebaceous matter in the ducts of the glands, the projecting end becoming blackened by a collection of dust. Another variety consists of little white specks in the region of the eyes, consisting of sebaceous matter beneath a very thin layer of skin. Other varieties consist of inflammation surrounding the gland, causing hard indurated nodules as large as half a pea.

Treatment.—The general health should be built up. If dyspepsia and constipation exist, remedies should be employed for their cure. The local treatment of the disease should be left to a physician.

Eczema—Salt Rheum.

ECZEMA is, perhaps, the most common of all skin diseases. It occurs at all periods of life. It is non-contagious and may be either acute or chronic. It may make its appearance upon any part of the body, although it is most common upon the hands, feet and scalp. Eczema has been called a catarrh of the skin. It begins generally by itching and burning, redness and congestion. Vesicles or pustules may appear. There is, in all cases, an exudation, and crust or scales are formed. Infiltration sometimes takes place, followed by fissures or cracks. Itching is a prominent symptom. The most varied appearances present themselves in different cases, but the essential condition is a moist surface upon which an exudation or scabbing takes place, which is attended by an unbearable itching, in comparison with which the itching of *the itch* is a most pleasant sensation. It appears upon the scalp and face of the infant, and spreads until sometimes the entire scalp and face are completely covered by the crust. The feet and hands of adults are the parts most affected.

Treatment.—Many cases of eczema are very difficult to treat. In acute cases the most soothing applications are best. The skin must be protected from the air. Both air and water are very irritating in cases of eczema. The oxide of zinc ointment is, perhaps, as soothing and valuable a dressing as can be used. In chronic cases the scales must be removed, and sometimes require rather severe stimulating treatment, even to scrubbing with a brush and soap. If this is done, the parts must be immediately dried and covered by a mild and soothing application. Water is to be avoided when possible. The different preparations of tar are most popular in the treatment of chronic cases. Attention must be given to the general health. Tonics are always required, together with cod liver oil. Starch and sugar should be avoided in articles of diet, and a large amount of fats taken. Any measure that will promote the general health is in the right direction.

Erysipelas.

A disease characterized by fever, with a local inflammation of the skin. The part inflamed is very red. The boundary-line dividing the healthy from the diseased skin is very marked.

Erysipelas may arise from two circumstances. It may be caused from a specific, contagious virus. When so arising it is called *idiopathic erysipelas*. It may be preceded by some wound, from which the inflammation radiates. Under this condition it is called *traumatic erysipelas*.

At times this disease is very contagious and very fatal. The inflammation may extend to the tissue beneath the skin, forming extensive abscesses. A large amount of connective tissue mortifies. There is a tendency for it to spread, principally on the surface, but it may involve internal organs, as the throat and the membrane covering the brain.

This is not a local, but a constitutional disease, and the patient is not protected against but rather more liable to future attacks.

A puerperal woman, coming in contact with erysipelatous virus, may contract some form of puerperal fever.

Treatment.—An erysipelatous patient should be kept by himself, especially away from wounded and puerperal patients. The

inflamed skin may be bathed in copperas water or painted with the tincture of iodine. To prevent the inflammation from spreading, make a ring around it, upon the healthy skin, with nitrate of silver or collodion. Internally: tincture of iron in twenty drops, dose in water every two or three hours, and two grains of quinine every hour or two. If the inflammation has extended to the parts beneath the skin, and the skin is tense, incisions should be made to relieve the tension and evacuate the pus. Poultices are of great service when there is a tendency to gangrene.

THE MUSCULAR SYSTEM.

In the preceding pages we have seen how new matter, in the form of food from the animal, vegetable and mineral kingdoms, is being constantly introduced into the body to supply the waste which is constantly taking place there.

To discover and appropriate these articles of food, to provide clothing necessary to sustain the temperature of the body, and to secure shelter, it is necessary that man be provided with power of *locomotion*, as well as *power of movement of one part of the body upon another*, as the arms upon the trunk and the fingers upon the hands.

This power of motion and locomotion is resident in certain organs, the *lean meat* of the body, called *muscles*. Muscles are of two kinds, voluntary and involuntary. The voluntary muscles are those which contract in response to the will, such as the muscles of the face, arms and legs. The involuntary muscles are those whose contraction does not depend upon our wishes, such as the heart, which goes on contracting month after month, and year after year, sleeping or waking, never stopping while we live. It is estimated that during a life of eighty years it propels half a million tons of blood! Every muscle is a bundle of tens of thousands of *fibres*. These fibres are from $\frac{1}{500}$ to $\frac{1}{1500}$ of an inch in thickness, and are made up of hundreds of fibrillæ only $\frac{1}{25000}$ of an inch in diameter. The substance of these fibrillæ presents a peculiar striated appearance, due to the fact that they are made up of elongated bead-like nuclei.

Every fibre has the power, under certain conditions, of shortening its length, while it at the same time increases its thickness.

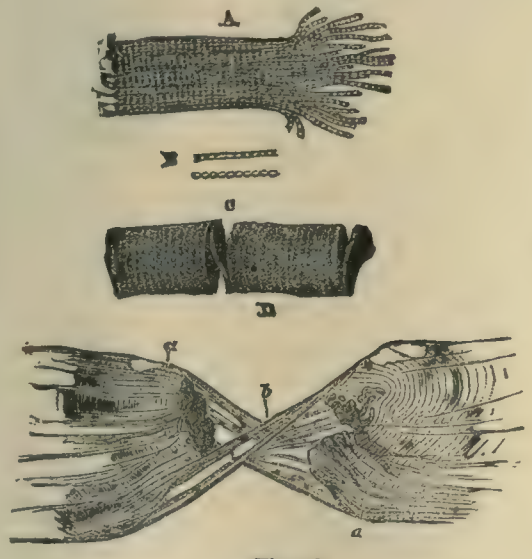


Fig. 26.

A, a muscular fibre breaking up into its fibrillæ; *C*, a muscular fibre breaking up into disks; *D*, a muscular fibre with contractile substance torn, and the sarcolemma still intact.

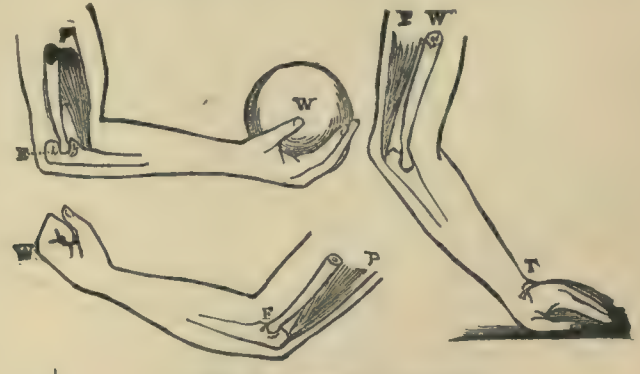


Fig. 27. Muscles of the Arm.

P, the power; *F*, the fulcrum; *W*, the weight.

This power is called *muscular contractity*, and when, in virtue of this power, a muscular fibre *contracts*, it tends to bring its ends together with whatever may be fastened to them.

The great majority of the muscles are attached to *levers*, which are the bones of the body. Figure 27 will illustrate the different kinds of levers described in mechanics, and sufficiently explain the movements of the different levers of the body upon each other.

THE BONES.

To give form and symmetry to the body, as well as to afford attachment and leverage to the muscles, by which locomotion is made possible, an essentially different tissue from any yet considered is necessary. This tissue must be hard, strong and unyielding, and so disposed as to form a frame-work for the support of the soft parts.

Such a frame-work we find in the skeleton, which is made up of bones of various sizes and shapes, and known as *long*, *short*, *flat* and *irregular* bones, and so disposed as to perfectly fulfil the offices for which they are intended. Some of the bones are designed principally for the protection of soft and delicate parts. Such are the bones of the cranium, which are immovably dovetailed together so as to form a strong box for the enclosure and protection of the brain.

Some not only afford protection to delicate organs and aid in preserving form and symmetry, but at the same time afford attachment for muscles, and thus aid in movements essential to life. Thus the ribs afford protection to the heart and lungs, maintain the form and symmetry of the chest, and afford attachment for the respiratory muscles.

The *long* bones are found in the limbs, where they form a system of levers, which, in the lower extremities, have to sustain the weight of the trunk, and, besides, confer the power of locomotion. In the upper extremities (Fig. 27) they are essential to those movements necessary in all manual labor.

The *short* and *irregular* bones are found where great strength and solidity are required. They are shaped also for the attachment of numerous muscles and for protection of certain delicate organs.



Fig. 28. A Perfectly Shaped Foot.

Bone tissue is the hardest structure of the animal body, and at the same time possesses a certain degree of toughness and elasticity. Every bone, be it *long* or *short*, is composed of what is called *fundamental substance*. It is a peculiar *organic* animal substance, called *ostine*, in combination with various inorganic salts, of which the phosphate and carbonate of lime largely predominate. To the organic substance are due its toughness and elasticity, while to the inorganic salts must be credited its hardness and solidity.

If a bone be soaked in dilute hydrochloric acid for a time, its mineral constituents will be removed and the organic substance will remain in the shape of the original bone. This is no longer hard and unyielding, but is soft, pliable and elastic; and, if a long bone, it may be tied in a knot, as shown in Fig. 29.

If, on the other hand, the bone be burned for a short time in an open fire, the organic substance is consumed, and the mineral constituents remain, in which case the bone remains hard and in its original shape, but has lost its elasticity. It is now very brittle and easily broken.

The point of union between two bones is called a joint. Here the surfaces are coated with smooth cartilage and covered with a delicate membrane which secretes a peculiar fluid for lubricating the articular surfaces.



Fig. 29. A Bone with the Inorganic Salts Removed, Tied in a Knot.

DISEASES OF THE BONES.

In children and young people the organic substance of the bones preponderates. The bones are, therefore, elastic and very difficult to break, but are soft, and easily bent and deformed. Bow-legs may be caused by requiring a child to sustain the weight of its body upon its legs too early.

In old people the inorganic constituents of the bones preponderate, and therefore their bones are very brittle and easily broken. With them, great care against falling should be observed.

Rickets.

There is a disease of early childhood known as *rickets*, in which the mineral constituents of the bones are not deposited in normal quantity, and, as a result, the bones become very soft; and, by action of the muscles, they are bent into all sorts of deformed shapes. Thus result bow-legs, knock-knees, pigeon-breasts and deformities of spine and pelvis. Enlargement of the joints takes place; the head grows too fast and the face too slow.

The disease is usually caused by poor food and damp, unhealthy apartments. The little patient seldom dies, but generally becomes more or less deformed.

Treatment.—Correct diet, plenty of good, pure milk, sufficient animal food, and an abundance of fresh air. Give the

child cold sponge baths of short duration, and rub briskly with a towel. The child must be kept off its feet and required to sleep on a mattress. The limbs may require splints.

Deformities from Clothing.

Silly young girls—and most young girls are silly in matters of dress—deform their bodies for life by wearing corsets laced so as to compress the lungs and heart, and force downward the abdominal organs into unnatural positions, when, by the compression of the blood vessels, the organs of the abdomen and pelvis become congested, and conditions are developed from which they can never recover. The great regret is that so many of them remain silly, and that even mothers may be found as silly as the girls. Corsets which are used to destroy the vital organs of our girls are capable of doing vastly more harm than the little iron shoes which are used to destroy the feet of Chinese ladies, because of the greater importance of the organs involved. A young American girl would have no difficulty in seeing that the compressed and deformed baby foot of a Chinese lady is not handsome, but it is really too bad that she cannot be made to see that her permanently deformed body, with her ribs all crushed in upon her vital organs, is not beautiful.

Deformed Feet.

But *deformed feet* are not alone found in China. American young men and young women will often wear shoes one or two sizes too short and with narrow toes, which pile the toes of the foot one on the top of another until the most terrible permanent deformities exist, and which, with corns and enlarged joints, cause the ugly shapes which we see in men and women. Besides the deformity and the excessive pain, the young lady or gentleman is unable to walk or dance, except in a hopping, most awkward way. The motive for this species of self-imposed torture is to be handsome and admired, but they defeat their purpose in making for themselves ugly, deformed feet, and substitute an awkward and stumbling gait for a grace and beauty of movement possible only with a well-shaped and unbound foot.

THE NERVOUS SYSTEM.

The parts and functions of the body which we have thus far considered stand in subordination to the wonderful system now to be examined. "It may truly be said," are the words of Draper, "that the position of any animal in the scale of life is directly dependent on the degree of development of its nervous system. Through this it is brought into relation with the external world, deriving sensations or impressions therefrom. Through this, also, all voluntary muscular contractions or movements take place."

Whatever the grade of intelligence may be, the degree of development or expansion of the nervous system is in close correspondence thereto, from the lowest conditions in which it is first making its appearance, in forms of animal life which are scarcely distinguishable from vegetable forms, up to its highest elaboration in the cerebro-spinal system of man.

The nervous system may be considered as of two portions, the *cerebro-spinal* system and the *sympathetic system*. The cerebro-spinal system consists of the brain, the spinal cord, and the nerves which proceed from them, together with their ganglia. The sympathetic system consists of a series of nervous ganglia placed on the posterior wall of the thoracic and abdominal cavities upon each side of the vertebral column, and of nervous threads or filaments which connect these together, and supply the walls of the blood-vessels and the internal organs. Comparatively little is known about the functions of the sympathetic system, except in so far as it may regulate the size of the blood-vessels; and, indeed, this action appears to depend upon the filaments received from the spinal nerves.

In both divisions are found two kinds of structure—fibrous and cellular. The latter are found in masses of greater or less size and of various shapes, and are called *ganglia*. The former, consisting of fibre, serve to connect the ganglia together and to put them in communication with the integument, the muscles and all parts of the body. The function of the ganglia or nerve centres is for the reception of impressions and for the origination of motions. The cortex of the brain is the greatest of these ganglia in extent and in function. In this wonderful ganglion originates voluntary motion; here also are received, through the special senses, the impressions of external objects and circumstances, and from it originate the processes of intellection.

It would be beyond the scope and purposes of this article to recite the more minute anatomy of the nervous system, for to be of service to the reader it would necessitate space for explanation and illustration beyond the compass of the entire article. It will be sufficient to indicate the position and character of the larger organs which go to make it up.

The brain is that part of the nervous system contained within the cavity of the skull (Fig. 30). It consists of the *cerebrum*, *cerebellum*, *pons varolii* and *medulla oblongata*. Besides the protection afforded this delicate organ by the strong bony walls of the skull, the brain is enveloped by three distinct membranes. The outer one, called the *dura mater*, is thick and strong, and lines the bones of the skull. It dips down between the different parts of the brain, forming strong partitions, so that one part shall not press upon and injure another. Next beneath are two layers of a thin membrane called the *arachnoid*, or *spider's web*. This is a serous membrane, with functions like that covering the heart and lungs; it is covered with epithelium, and secretes a fluid, small in amount, which lubricates and serves in a measure, perhaps, as a kind of cushion to protect the brain from jars received by the body. Beneath this is a very delicate membrane, composed principally of minute blood-vessels. It is closely adherent to the substance

of the brain, dipping down into all the *sulci*, and even finding its way through the posterior fissures into the *ventricles* or cavities occupying the centre of the brain. Its use is to nourish the brain.

The *cerebrum* (*C C*) represents the principal mass of the brain. It is divided by a deep fissure, from before backward, into two lateral halves, called the *right* and *left* hemispheres. The two hemispheres are connected together at the bottom of the fissure by a large bundle of white fibres, called the *corpus callosum*. In the centre of each hemisphere is a large cavity called the right and left *lateral ventricles*. The surface of the cerebrum is composed of cellular gray matter and presents a convoluted appearance, as shown in Figure 30. This gray cellular matter of the surface of the cerebrum is the anatomical substratum of the intellect. In that part of the surface of the hemisphere mid-way between the forehead and the back part of the head originates voluntary motion. One special function of the part just back of this seems to be the reception of impressions of external objects, brought hither by the nerves of special sense. The forward part of the hemispheres appears to be wholly for the purposes of intellection. By reference to Figure 30 the reader will observe a sharp point of bone in contact with the brain just back of and a little above the eye. From it extending upward and backward is a deep fissure, the *fissure* of *Sylvius*. Toward the front part of this fissure, and just above it, is a small convolution of gray substance called the *third frontal convolution*. The back portion of this convolution on the left side of the brain is the anatomical substratum of the faculty of *speech*. When this part is destroyed all language is lost. Language, moreover, is never lost except by disease of this part.



Fig. 30. The Human Brain.
C, *C*, cerebrum; *cb.*, cerebellum; *m. ob.*, medulla oblongata.

The interior of the hemispheres is composed of white matter which consists of fibres connecting together different parts of the brain, and of fibres passing down into the spinal cord. The fibres are probably connected with the cells on the surface of the hemispheres, and after being gathered into a bundle pass down to other ganglia, there to be put in communication with the skin, muscles and viscera of the body. There are certain collections of gray matter at the base of the hemispheres, called the *basal* ganglia. Fibres from these ganglia unite with the fibres from the convolutions in two triangular-shaped bundles, the *crura cerebri*, one from each hemisphere, and pass downward through the *pons varolii* into the *medulla oblongata* (*m. ob.*), as the oblong body at the top of the spinal cord is called.

The *cerebellum* or little brain (*cb.*) is situated beneath the posterior lobes of the cerebrum. It measures about three and a half by two and a half inches, and is about two inches thick in its thickest place. It weighs about five ounces, being only about one-eighth as large as the cerebrum. It is composed of gray and white matter, and, like the cerebrum, is divided into two lobes. Its functions are not well understood, but are, at least, related to the co-ordination of movements.

The *pons varolii* is a bond of union or *bridge* between the *cerebrum* above, the *cerebellum* behind, and the *medulla oblongata* below—being made up of fibres from these bodies and passing in different directions from one to another.

The *medulla oblongata* is the upper enlarged part of the spinal cord. It lies within the cranial cavity, and is connected with other parts of the brain by bundles of fibres passing upward through the *pons varolii*. It is composed of gray and white matter, but, unlike the *cerebrum*, the white matter occupies the surface, while the masses of gray matter are in the interior. From the medulla are given off all of the cranial nerves except two pairs, the *olfactory*, or nerves of smell, and the *optic*, or nerves of sight. These two pairs take their apparent origin at the base of the cerebrum.

The *spinal cord* is the continuation of the nervous matter from the medulla down through the spinal canal. Were it not for the gray matter in its interior, which is a real ganglionic centre, it might be considered a great nerve trunk from which all the other nerves are but branches. The spinal cord, like the cerebrum, is divided into two lateral halves by a deep fissure in front and behind. The two halves are connected together in the centre, throughout the length of the cord. The surface of the cord, like the medulla oblongata, is composed of white matter. In the interior of each half is a crescentric-shaped collection of gray matter which extends throughout the length of the cord. The forward horn of the gray crescent is broader than the posterior horn, and contains some very large nerve-cells. These horns are called the *anterior* and *posterior cornua*. The centre of the crescent to which they belong is connected with the gray crescent of the opposite side by a band of gray matter. The white matter of the cord is made up of fibres which connect the gray matter of the brain with the gray matter

of the cord and with the ganglia on the roots of the spinal nerves.

There are thirty-one pairs of nerves given off from the cord, one pair passing out at each vertebral arch enclosing the spinal canal.

Each nerve arises from the cord by two roots, the *anterior* and *posterior* roots, which then unite to form a single trunk or spinal nerve.

If the trunk of a spinal nerve be irritated as by pinching, two things happen: in the first place, all the muscles to which its filaments are distributed contract; in the second place, acute pain is felt, and the pain is referred to that part of the skin to which the fibres of the nerve are distributed.

If the anterior root of the nerve be irritated in the same way, all of the muscles to which the nerve is distributed will contract, but no pain will be felt.

So, if the posterior root of the nerve be irritated in the same way, and the anterior root be left untouched, acute pain will be felt and referred to the whole area of the skin to which the nerve is distributed, but none of the muscles contract.

It is, therefore, clear that all the power for causing muscular contraction which a spinal nerve possesses is centered in the fibres which comprise its anterior roots, while all the power of giving rise to sensation resides in its posterior roots. The anterior roots, therefore, are commonly called *motor*, and the posterior roots are called *sensory*.

If the anterior roots of a spinal nerve be divided in a living animal, it is unable to move or contract the muscles to which the nerve is distributed, but every part of the skin remains sensitive to touch. But if the anterior root be left uninjured and the posterior root be divided, the animal will be able to move or contract all the muscles, but is unable to feel anything over any part of the skin to which the filaments are distributed.

By these experiments, then, it is clear that the anterior roots are composed of fibres which convey impulses *from* the ganglionic centres in the brain or cord *to* the muscles, causing the muscles to contract. It is also plain that the posterior roots are composed of fibres which carry impressions *from* the surface where they originate *to* the centres in the brain and cord.

Those nerves which carry impulses *from* the central organ *to* the periphery are called *efferent* nerves, while those which convey impressions *from* the outside *to* the central organ are called *afferent* nerves.

If similar experiments be performed upon the spinal cord, it will be found to act in many respects similar. If the cord be divided in the back, the animal will be unable to move the hind legs, and this part of the body will be insensible to pain, while all the parts forward of the cut will retain all the powers of motion and sensation.

If, by an accident, a man should suffer a similar injury, all of the parts below the wound would be paralyzed. The patient would be unable by his own will-power to move his legs; neither would he have any sensation in the parts. If he should be blindfolded, and the soles of his feet be tickled with a feather, he may jerk up his legs in the most violent manner, still he will not only know nothing of the tickling, but will have no knowledge of the jerking of his legs, for the reason that all impressions made upon his lower extremities are cut off from his brain, which is the anatomical basis of his mind. He can make no intentional or voluntary movement of his legs for the same reason; his brain is cut off from the muscles of his legs at the point where the cord is cut in two. The movement in response to the tickling of the feather is very easily explained. The impression from the sole of the foot passes up by the sensory fibres to the gray matter of the cord, which, acting as a centre, originates there an impulse or stimulus, which, passing out over the motor filaments to the muscles, causes them to contract, thus giving the violent jerk to the legs.

The above is but an illustration showing that many of our common movements, such as walking, or any habitual and oft-repeated movement, may be executed without requiring the attention of the mind; some of the basal ganglia of the brain acting as a centre, and originating the motor impulses.

If not the whole cord, but only the anterior part, be injured, a paralysis of motion below the injury results, while sensation will remain perfect. If the posterior part be injured, on the other hand, sensation is lost while motion is unaffected.

If one lateral half of the spinal cord be divided, say on the right side of the body, the patient will immediately lose all power in the right leg, but sensation in the right leg will be perfect. He will, however, lose all feeling in the left leg, while the power of motion in this leg remains good. Hence, it must be true that the sensory fibres cross over from the side where they enter to the opposite side of the cord to pass up to the brain, while the motor impulses sent down from the brain must pass down on the same side of the cord by which they pass out to the muscles.

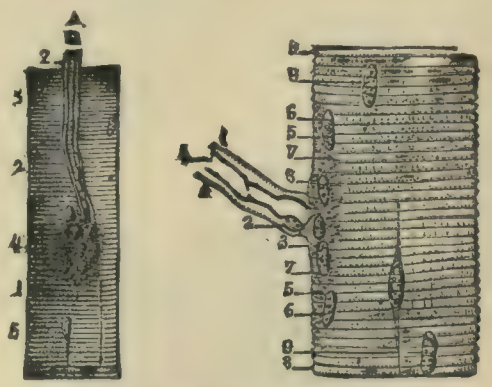


Fig. 31. Mode of Termination of Motor Nerves.

A, primitive fasciculus of a muscle of the human subject; 2, nerve tube; 3, medullary substance of nerve tube; 4, terminal plate situated beneath the sarcolemma.

If this be true, it follows that a longitudinal division down the centre of the cord throughout its entire length would destroy sensation on both sides of the body, without interfering at all with motion.

If, however, the longitudinal incision be carried up through the lower part of the medulla, paralysis of motion on both sides immediately results, for at this point all of the motor fibres from the right side of the brain cross over to the left side of the cord, while those from the left side of the brain cross over to the right side of the cord.

NERVE ENDINGS.—The motor fibres of the spinal nerves originate in the *anterior cornua* of gray matter in the cord, and are believed to be intimately connected there with certain nerve cells, which are capable of originating motor stimulus. The distal end of the motor fibre passes through the *sarcolemma* of each muscular fibre and is brought into the closest relation with the muscular substance, as shown in Figure 31.

The sense of touch is possessed by all parts of the body, some parts more perfect than others. Wherever the sense of touch is delicate, the deep layer of the skin is raised up into little conical *papillæ*. Into these papillæ the terminal ends of the sensory nerve fibre enters. In certain localities, as the tips of the fingers, where the tactile sense is very acute, the

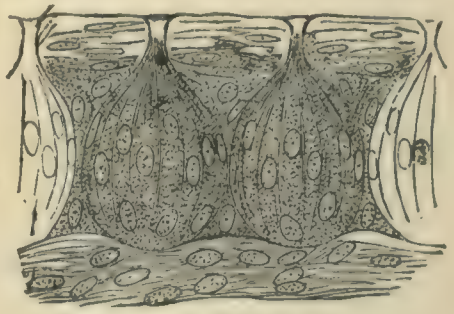


Fig. 32. Taste-Buds From the Rabbit.

nerve ending is enlarged in the papillæ, forming a little oval swelling called a *tactile corpuscle*. Filaments of the nerve of *taste* terminate in a similar manner in papillæ upon the tongue. Surrounding these papillæ are peculiar cells, or *taste-buds*, in which is supposed to reside the sense of taste. Figure 32 shows these *taste-buds* in the rabbit.

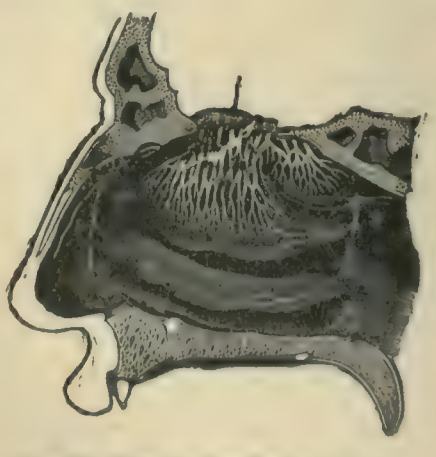


Fig. 33. Olfactory Ganglion and Nerves.

The endings of the filaments of the *olfactory* nerve, or the special nerve of *smell*, upon the delicate mucous membrane in the upper part of the nasal cavity, is beautifully shown in Figure 33. The termination of the *auditory* and *optic* nerves is explained in the chapter upon the special senses of sight and hearing.

DISEASES OF THE NERVOUS SYSTEM.

The diseases of the nervous system, as might be expected from its delicate anatomy and complicated functions, take a wide range, from the slightest twinge of pain in a minute nerve filament to total paralysis or hopeless insanity.

In all the graver manifestations of nervous disease, the advice of a physician skilled in the treatment of disease is naturally sought; this will render discussion of the more serious affections unnecessary. No class of diseases are more serious than those of the nervous system, and while it may be true that there is less tendency to a spontaneous recovery than any other class of diseases, yet it is also true that no class of diseases are more favorably influenced by proper treatment.

The chief symptoms of nervous disease are usually manifested either by *pain*, *convulsions*, *paralysis*, *trembling*, *sleeplessness*, *imbecility* or *insanity*. Two or more of these conditions may exist in the same patient. *Pain* is a symptom common to many diseases. The disease in which it constitutes the only symptom is

Neuralgia.

Pain may have its seat along the course of any nerve. It receives different names corresponding to the seat of pain. Thus we hear of *facial* neuralgia, *inter-costal* neuralgia, *occipital* neuralgia, *sciatica*, or neuralgia of the sciatic nerve, *gastralgia*, or neuralgia of the stomach, etc., etc.

The pain of neuralgia varies in different cases and at different times from a slight, dull ache to the most excruciating torture. The nerve which is the seat of the pain, in many instances at least, is in a state of inflammation. It is usually tender, as shown by examination, at points where pressure can be made upon the nerve, and following an attack there is usually a certain soreness and tenderness over the seat of the pain.

Treatment.—It is impossible in this article to give the space which the subject demands. The treatment embraces a large number of remedies and many methods of procedure. That which has affected a permanent cure in one case may have no effect in another. In some cases the pain is so persistent as to tax the physician to the utmost, who finds a remedy after having almost exhausted the pharmacopœia.

Some form of opium will always afford temporary relief if taken in sufficient doses, and it is one of the most valuable curative remedies in many cases. The patient is apt to be in poor flesh. In such a case, if a permanent cure is to be anticipated, the general health must be improved, and the body weight greatly increased. A method has, of late years, been very successfully employed in sanitariums, where the patient is required to take the necessary amount of rest in bed, to take a large amount of the most nourishing food, at intervals of only a few hours, and accompanied with baths, massage and suitable tonic treatment. By this means the body weight is greatly increased, the general health built up, and this is almost always followed by entire and permanent relief from pain.

Convulsions.

The term convulsion may be applied to an acute spasmodic contraction of the whole muscular system, as in infantile convulsions, or to an occasional paroxysm, as in an *epileptic fit*, or to the constant irregular contraction of certain muscles, as in *chorea* or Saint Vitus' dance.

Treatment.—In the case of infantile convulsions the child may be placed in a tub of warm water, and cold water may be poured upon its head. After the first paroxysm is over, the cause of the convulsion should be sought out. If due to dentition, or "cutting teeth;" or to worms in the bowels, the proper remedy for such conditions should be applied. Paregoric or bromide of potassium will quiet the system.

In case of *chorea* the general health must receive attention. Quinine and iron will be found to be most valuable tonics. Malt or cod-liver oil is called for. A solution of arsenic, given in large doses, is perhaps the most valuable of all medicinal substances in this disease, but should be given only under the observation of a physician.

Epilepsy.

EPILEPSY, or "fits," needs no description here, since there is no difficulty in recognizing the disease when it exists. If all cases of epilepsy could receive proper and thorough treatment from the beginning, I believe that in the majority of cases it could be cured, but frequently no physician is consulted until after a large number of paroxysms have finally aroused the friends to the danger. Even when advice is sought, treatment is seldom thorough or carried on for a sufficient length of time. In few cases should treatment be left off before the end of, at least, two years.

The treatment of benefit in the greatest number of cases is the bromide of potassium or sodium, together with tonic treatment and a generous diet, sleep, rest and quiet. The bromide of sodium affects the stomach less, and, therefore, in most cases is to have the preference. It should be taken, according to the age of the patient, in doses of from two to ten grains, in a wine-glass of water, three times a day after meals.

Paralysis.

Paralysis may occur at any age, and is due to many causes. It may vary in extent from a single muscle, or group of muscles, to a loss of power over almost the entire body.

Paralysis may result from an injury to a nerve, in which case only the muscles supplied by that particular nerve are affected. It may result from an injury to or a disease of the spinal cord. In such a case the paralysis may be found on one or both sides of the body, or in only a single group of muscles, according to the seat and extent of the injury. But in every case the paralysis is always below the point of disease or injury of the cord. It may result from injury or disease of the brain, in which case the paralysis usually affects one entire side of the body, when it is called *hemaplegia.* When the disease or injury is upon the right side of the brain, the left leg and left arm are paralyzed; and when the disease is upon the left side of the brain, the paralysis is upon the right side of the body. This is explained by the fact that the motor fibres arising from one side of the brain cross over in the *medulla* to the opposite side of the body.

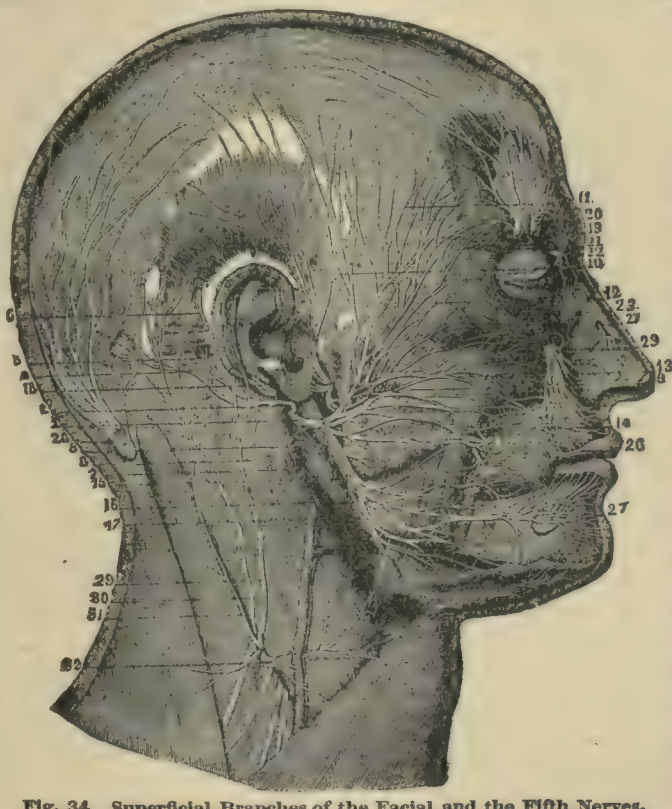


Fig. 34. Superficial Branches of the Facial and the Fifth Nerves.
1, Trunk of the seventh or facial nerve; 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, branches of the fifth nerve.

Infantile paralysis occurs usually in children between one and four years of age. The child may be fretful and troublesome for a day or two previous, but frequently the first symptom noticed is the paralysis. This may occur in the leg or arm on the same side, or the leg on one side and the arm on the other, or both legs may be paralyzed and the arms not affected, or both arms may be paralyzed and the legs remain well; or only one leg or one arm may be the seat of the paralysis. The paralysis is due to an inflammation of the *anterior cornu* of the gray matter of the spinal cord, and the extent of the paralysis will depend upon the extent of the inflammation. The child will probably not die. Some of the paralyzed muscles will regain their power. Others never will, but will waste away. The child will grow up more or less of a cripple. The treatment should be left to a physician.

In *paralysis of the extensor muscles of the hand*, due to lead-poisoning, recovery will take place under proper treatment. Remove the cause. If the patient be a printer or worker in lead, a change of occupation will be necessary. Iodide of potassium may be taken in ten-grain doses three times a day after meals in half a glass of water.

Hemaplegia, or paralysis of one side of the body due to injury or disease of the brain, may be caused by *embolism* or *thrombosis* (plugging of a blood vessel), thus cutting off nutrition from a portion of the brain, or may be caused by a hemor-

rhage into the substance of the brain or upon its surface, and thus, by tearing the nerve fibres, or by pressure, the function of the organ is destroyed; or paralysis may result from a tumor or an abscess in the brain, or from other causes. The results as regards the question of recovery from the paralysis will depend upon the exact seat and extent of the injury. The treatment should be left to the advice of a physician.

There are a great number of diseases which manifest strange symptoms, affecting both the motor and sensory nerves, but which would require the attention of a physician, and which would take up too much space to treat here.

Insomnia.

Insomnia, or sleeplessness, is a symptom common to many nervous diseases, and one which requires prompt attention, as without sleep little good can be accomplished in other directions by treatment. The treatment must depend very much upon the age, occupation and other circumstances of the patient. If in a child, out-door play at games requiring exercise sufficient to produce fatigue should be encouraged.

In men and women worried by business or domestic cares, disappointments or anxieties, the case is much more serious. If possible, they should, for a time, leave home and business, when they will often leave their worries, also, behind them. Mental labor should be abandoned entirely, and physical labor or sports requiring little thought, of a kind most comformable to the tastes of the patient, and affording the most pleasant diversion, should be chosen and followed to the point of fatigue. A generous diet of the most nutritious food should be taken, and a comfortable spring-bed, in a well-ventilated, cheerful room, should be provided. One of the bromides, with tonics, may be prescribed, together with meat and milk. In severe cases the hydrate of chloral, in from fifteen to thirty-grain doses, may be given at bed-time.

Insanity.

Insanity, the most dreaded of all the nervous diseases, is a mental symptom dependent upon a disease of the brain. It is commonly classified according to the character of the delusions and conduct of the patient. Thus we have *mania*, *melancholia* and *dementia*. This classification is further divided into the *acute* and *chronic* of each class.

The cause of the disease is more often hereditary than otherwise. Aside from hereditary taint, general poor physical health, nervous prostration, anxiety and worry will rank next as causes of attack. Where a predisposition exists, the most trivial disorders and circumstances, which, in other persons, would be unfelt, may act, in these individuals, as exciting causes. Child-birth, typhoid fever, business failures, disappointment in love, religious or other excitement, and a hundred other things, may act as an exciting cause in a person of an unstable nervous system.

In the beginning of an attack there is usually lack of appetite, loss of weight, sleeplessness, constipation. If these symptoms were promptly relieved many cases of insanity might be averted.

Treatment.—After the disease is fully developed, if melancholy delusions are present, the greatest care and watchfulness should be observed to guard against suicide or self-injury. In case of violent mania, care is to be taken that no injury is done to others.

Prompt attention should be given to secure a movement of the bowels, to induce the patient to take a suitable amount of food, and to secure not less than eight hours' sleep during the twenty-four. If this cannot be secured at home, the patient should be sent to an institution where he can have the proper care, without a day's delay. The choice of an institution will depend upon the circumstances of the patient; if possible, an institution should be chosen where there are not too many patients, where individual care is certain to be given by physicians skilled in the treatment of such cases. If the patient is poor, he will have to be sent to a State institution, in which case avoid, if possible, a crowded ward. With the best treatment, from forty to fifty per cent of patients recover.

THE EYE.

Anatomy.

The eyeballs and nearly all of their accessory parts are securely contained in two bony cavities called the orbits. These are shaped like four-sided pyramids, with their bases pointing forward and outward, and their apices backward and inward. They are about 1¾ inches deep, and their axes are inclined to each other at an angle of 42 degrees to 43 degrees. Each orbit has a roof, floor, inner and outer wall. The roof is very thin and separates the orbital from the cranial cavity. At its outer angle there is a depression for the lachrymal or tear gland, and another at its inner angle for the pulley of the superior oblique muscle. The inner wall has in front the lachrymal groove for lachrymal sac. The base or facial opening of the orbit has a strong, bony edge, and is about 1⅛ in. wide, and 1⅓ in. high. The apex is formed by the optic foramen and canal, which connects the orbit with the interior of the skull, and through which the optic nerve passes.

The orbits are lined by a vascular membrane, which nourishes the bony walls, and which is continuous at fissures and sutures with the *periosteum* of facial bones, and *dura mater* within the skull. It also forms a tendinous ring around optic foramen, giving origin to the ocular muscles.

Upon this membrane, or *periorbita*, and filling the space not occupied by the eyeball and its appendages, is found connective tissue and loose fat, which serve as a support to the globe and facilitate the various movements of which it is capable. The

connective tissue is thickened in places, forming sheaths for the muscles, vessels and nerves, and fascia for connecting the parts within the orbit with one another, and with the periorbita.

The optic nerves originate at the base of the brain, in the *thalami optici* and *corpora quadrigemina*, and receive filaments from other portions of the brain and spinal cord. From their origin they run forward as *optic tracts* until they unite just posterior to the optic foramina and form the *optic chiasm*, in which they decussate. The fibres of the inner side of each tract cross over to inner side of opposite nerve and supply the inner half of the retina on that side. The outer fibres of each tract pass directly, without crossing, to outer half of nerve and retina of same side. The optic nerves proper begin at the outer anterior edge of chiasm, and, rapidly diverging as they leave the cranial cavity, pass through the orbits to the eyeballs, which they enter about two lines within and half a line below the posterior pole.

The eyeball is situated in the anterior part of the orbit a little to the outer side of its axis, and about equi-distant from the upper and lower walls. It is maintained in position by the optic nerve behind and the lids in front, and is further supported behind and on the sides by a cushion of fat. It is nearly spherical in form, but a side view shows it to be composed of segments of two spheres of different diameters. The anterior segment, which forms the transparent cornea, has the shorter diameter and is therefore more prominent than the posterior or scleral portion. The eye is longer from before backward than transversely, and is shortest vertically. The anterior pole is the geometrical centre of the cornea, and the posterior pole is the geometrical centre of the bottom of the eye. The axis is an imaginary straight line extending from pole to pole. The equatorial plane is an imaginary plane through the centre of the globe perpendicular to the axis. The equator is the line where the equatorial plane cuts the surface of the eyeball. Meridianal planes are imaginary planes coinciding with the axis. Meridians are lines where meridianal planes cut the surface.

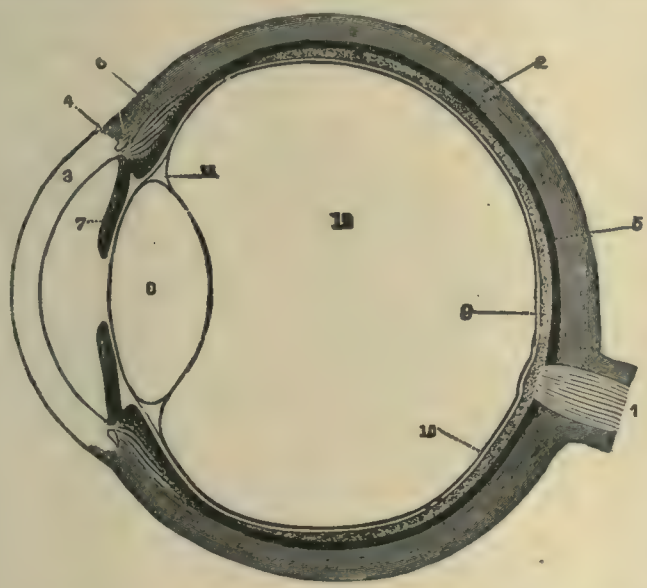


Fig. 35.

1, Optic nerve; 2, sclera; 3, cornea; 4, Schlemm's canal; 5, choroid; 6, ciliary body; 7, iris; 8, crystalline lens; 9, macula lutea of retina; 10, retina; 11, suspensory ligament and canal of Petit; 12, vitreous.

The eyeball has three investing membranes or coats which maintain its shape and enclose three transparent humors. The outer coat embraces the cornea and sclera, the middle coat the choroid, ciliary body and iris, and the inner coat is the retina. The humors are the aqueous, crystalline and vitreous.

The greater part (five-sixths) of the outer coat, commonly known as the "white of the eye," is called the sclera (from Gr. *skleros*, hard). It is very firm and elastic, nearly one-half a line in thickness behind, where it is re-enforced by the sheath of optic nerve, and gradually becomes thinner toward the anterior border, where it is only one-fifth of a line thick. The sclera is continuous in front with the cornea, being joined to the latter by bevelled edges, the outer overlapping the cornea more than the inner edge. The opening in the sclera behind, for the passage of the optic nerve fibres, is partially closed by a few fibres from the sclera, which are joined by the sheaths of the nerve fibres, and together form a sieve-like membrane called the *lamina cribrosa*. Near the inner anterior edge of the sclera is a circular channel called *Schlemm's canal*. It encloses venous plexus, receives veins from sclera and ciliary plexus, and communicates with the anterior chamber and anterior ciliary veins.

The cornea (Latin, *cornu*, horn) forms the anterior one-sixth of the outer coat and is also very dense and elastic. It fits into the sclera very much as a watch crystal does into a watch. It is made up of five layers, viz.: the outer and the inner epithelial layers, the outer and inner elastic membranes, and the corneal substance proper. The latter embraces the bulk of the cornea, as the epithelial and elastic layers are very thin. The corneal substance is composed of elastic fibres, which are arranged into bundles, and these again into layers, whose general direction is parallel to the corneal surface. The spaces between the fibres, bundles and layers is filled by a cement-like substance, in which is a system of canals and spaces containing serous fluid, lymph cells and corneal corpuscles. The cornea, unlike the other coats of the eye, has no blood-vessels, except at its edge, where a very narrow zone of capillary loops is found. It is sustained through the circulation of serum in the lymph channels. Nerves are freely distributed throughout, chiefly near the anterior surface in epithelial and elastic layers.

That portion of the middle coat which lines the inner surface of the sclera is called the choroid behind, and the ciliary body in front. The choroid extends from the optic nerve entrance to a line just anterior to the equator. The ciliary body extends from the anterior termination of the choroid to that of the sclera, where it joins the iris, with which it is continuous. The iris hangs like a curtain from the anterior edge of the ciliary body, floating in the aqueous humor. The choroid is composed chiefly of blood-vessels with connective tissue, pigment cells and a few muscular fibres. The ciliary body may be considered as a prismatic ring with a posterior, anterior

and inner edge. The inner edge gives attachment to the suspensory ligament of the lens. In the anterior outer portion is found the ciliary, or muscle of accommodation, the outer fibres of which are meridional and the inner are circular. The inner posterior surface is raised into from seventy to eighty folds, the *ciliary processes*. The iris has a central opening, the pupil, through which the light passes to the interior of the eye. The amount of light admitted is regulated by two muscles in the iris, one of which dilates and the other contracts the pupil.

The retina is attached to the inner surface of the choroid, and with it extends from the entrance of the optic nerve to the *ora serrata*. It has ten layers, but only two are of special importance, the others being accessory. The layer of *rods* and *cones* receives the images of objects viewed, and the layer of *nerve fibres*, which is an expansion of the fibres of the optic nerve, transmits the impressions to the sensorium, and is recognized as vision. The most sensitive part of the retina, the *macula lutea*, corresponds very nearly with the posterior pole.

The aqueous humor is a watery fluid which fills the place between the cornea and crystalline lens. This space is divided by the iris into the *anterior* and *posterior chambers*, which communicate through the pupil.

The crystalline lens is a transparent double convex lens, situated behind the iris and between the aqueous and vitreous humors. It is enclosed by two structureless membranes, the anterior and posterior capsules, which are continuous, near the peripheral edge of the lens, with the *zonule of Zinn*, or suspensory ligament. Between the folds of the zonule and the border of the lens is a triangular space, *canal of Petit*, which is closed during life by the folds falling together. The anterior capsule supports the margin of the pupil unless the pupil be dilated, in which case the iris floats freely in the aqueous humor. The lens, though clear and apparently homogeneous in structure, is composed of flattened hexagonal fibres with dentated lateral edges, by which they are firmly joined together. The convexity of the lens is greater on the posterior than on the anterior surface.

The vitreous body (Lat. *vitreum*, glass) fills the cavity within the retina and behind the lens. It is a structureless, gelatinous substance, possessing a refractive power less than the lens, but greater than the aqueous humor. During fœtal life the hyaloid artery runs from papilla (optic nerve entrance) to posterior surface of lens, rudiments of which sometimes persist. The canal through which it passes is the *canal of Cloquet*, or *hyaloid canal*. The anterior surface of the vitreous is hollowed out for reception of the lens, forming the *hyaloidea fossa*. The vitreous has no vessels or nerves, and receives its nutriment from the retina and uveal tract (middle coat).

The eyeball is moved by six muscles, five of which take their origin from the tendinous ring around the optic foramen at the apex of the orbit. Four are called the *recti* (straight) muscles. They pass directly from their origin, over the globe, and are inserted in the sclera near the corneal margin, one above, one below, one on the inner and one on the outer side. The fifth muscle, the superior oblique, passes to the upper inner angle of the orbit, then through a tendinous ring—the *pulley*—then backward and outward, beneath the superior rectus, to upper, outer and posterior quadrant of the eyeball, where it is inserted. The sixth muscle, the inferior oblique, arises at the inner lower angle of the orbit and passes outward, downward, backward, beneath the inferior rectus, then upward and backward between external rectus and globe, and is inserted close to the insertion of the superior oblique.

The superior rectus moves the eye upward and inward, and rotates it slightly inward. The internal rectus, the strongest, moves the eye inward, and the external moves it outward. The superior oblique moves the eye downward and outward, rotating it inward. The inferior oblique moves the eye upward and outward, rotating it outward. Three of the recti, the superior, inferior and internal, and the inferior oblique, are controlled in their action by one nerve, the third, or *oculo motorius*. The superior oblique is governed by the fourth, or *trochlear* nerve, and the external rectus by the sixth, or *abducens*. The third nerve also sends a branch to the ciliary muscle (muscle of accommodation).

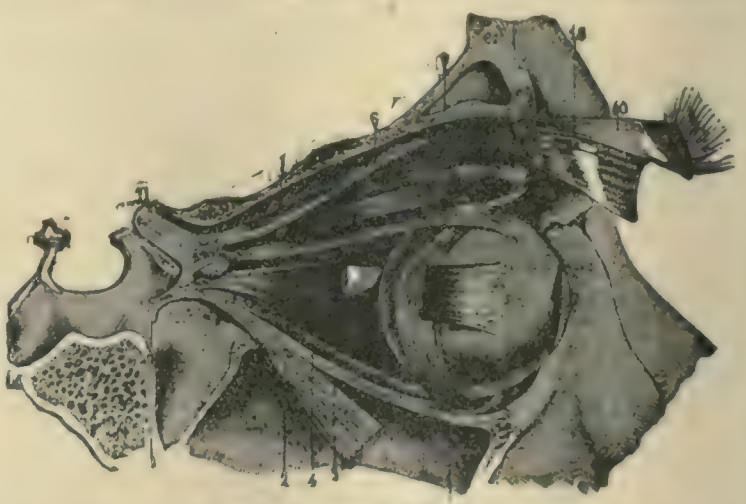


Fig. 36. Muscles of the Eye.

1, Inferior oblique; 2, ext. rectus; 3, int. rectus; 4, inf. rectus; 5, sup. rectus; 6, sup. oblique; 7, pulley of sup. oblique; 9, 10, levator palpebræ superioris; 11, optic nerve.

There are certain appendages of the eye which serve either as a means of protection or aid in the performance of its function. Of these, the eyebrows, eyelids and lachrymal apparatus are the most important. The eyebrows are arched elevations of skin above the orbits, covered with rows of short hairs, and serve to protect the eye and to slightly influence the amount of light admitted. The eyelids are two movable folds of skin covering the eyes in front and closing the orbital entrance. The upper lid is the larger, measuring about four-fifths of an inch in height upon its inner surface. The lower is only about half an inch high. The outer or skin covering of the lids is continuous at

their edges with their inner mucous lining or conjunctiva (Lat., *conjungere*, to join together), which is reflected from the lids on to the eyeball, forming the *retrotarsal fold* of the conjunctiva, and *joining* the lids to the globe. Between the skin and conjunctiva the lids are composed of loose connective tissue, muscle, cartilage, ligaments, glands, blood-vessels and nerves. The so-called cartilages of the lids are not true cartilage, but consist of dense fibrous tissue. They are two in number, one in each lid. The upper is the larger, and is crescentric in shape. The lower one is elliptical. They serve to maintain the form of the lids and as points of attachment for ligaments which bind the lids to edge of the orbit, and the muscle which lifts the upper lid, the *levator palpebræ superioris*. This muscle arises just above the origin of the recti muscles and passes forward along the roof of the orbit to its insertion around the upper margin of the cartilage of the upper lid. It is supplied by the third nerve.

The muscle which closes the lids, *orbicularis palpebrarum*, arises from the edge of the orbit, near the inner angle of the opening between the lids, and its fibres pass around the lids, between the skin and cartilage, and unite at the outer angle. It is supplied by the facial, supra-orbital and superior maxillary nerves.

The eyelashes, or *cilia*, are rows of short, thick hairs on the free margins of the lids, those of the upper lid curving upward and those of the lower curving downward. Their follicles lie in the connective tissue upon the cartilage, and are connected with sebaceous glands which lubricate the cilia.

Imbedded in the cartilages are blind tubes into which open secondary follicles (thirty to forty in upper lid, twenty to thirty in lower). The tubes, *meibomian glands*, lie parallel and open in a row near the inner edge of the free border of the lid. They furnish a sebaceous secretion which lubricates the margin of the lids.

The size of the opening between the lids, *palpebral fissure*, determines the apparent size of the eye; a large opening allowing the globe to bulge forward and become prominent, while a small fissure prevents much of the eyeball from being seen. The angles formed by the margins of the lids at the extremities of the fissure are called the *internal* and *external canthi*.

The conjunctiva, when the lids are closed, form a shut sac, with its palpebral and ocular surfaces in contact. It forms a crescentric fold at the inner canthus—*semilunar fold*, or *plica semilunaris*. This is regarded as the rudiment of the third eyelid, or *membrana nictitans*, in birds. Lying upon the semilunar fold in the inner canthus is a small red body, the *caruncula lachrymalis*. It consists of hair follicles, sebaceous glands, connective tissue and fat, is covered by mucous membrane, and has a few fine hairs on its surface.

The lachrymal apparatus consists of a secreting portion, the *lachrymal gland* and *conjunctival glands;* and the conducting portion, *canaliculi*, *sac* and *nasal duct*. The lachrymal gland is almond-shaped and lies in a depression in the roof of the orbit at the outer angle. Its lower surface rests upon the outer part of the eyeball, and its longest diameter, the transverse, is about three-fifths of an inch. The secretion of the gland (the tears) is conveyed to the conjunctival sac by six to twelve ducts, which open in a row at the outer third of the superior retrotarsal fold. The accessory glands consist of a group of small glands arranged in a row just above the conjunctival reflection. The secretion of the lachrymal and accessory glands is composed of water, albumen and salt, and is spread over the front of the eye by winking of the lids, lubricating its surface. The excess is collected in a triangular space at the inner canthus, the *lacus lachrymalis*, and is forced into the canaliculi by the orbicularis muscle, or flows over the cheek. Ordinarily the lachrymal gland pours out very little secretion, and its removal does not materially affect the moisture of the eye, the secretion from the accessory glands being quite sufficient for this purpose. Under the same circumstances the tears evaporate from the surface of the eyeball, very little passing into the nose.

The canaliculi are two mucous canals about one-quarter of an inch long and half a line in diameter, which begin in the centre of a small elevation, the *puncta*, about one-fifth of an inch from the angle of the lids, and run along the edge of the latter (one above and one below), to the lachrymal sac. The lachrymal sac lies in a groove in the upper end of the lachrymal canal, oval in form, and flattened from before backward; is about two-fifths of an inch long and one-sixth of an inch wide; is continuous with *nasal duct*, sometimes direct and sometimes interrupted by folds of mucous membrane. The nasal duct runs in a bony canal downward, backward and outward, three-fifths to four-fifths of an inch long and one-eighth of an inch in diameter, and usually opens in inferior meatus of the nose.

Certain changes are observed in most of the tissues of the eye in old age. The sclera loses its elasticity to some extent, and presents calcareous deposits, favoring the development of the disease called *glaucoma*. The cornea diminishes in size and thickness, and also loses tone; the elastic layers become brittle and show warty elevations at margins. Usually after fifty years of age fatty degeneration begins in the upper and lower margins of the cornea, forming *arcus senilis*. These grayish, crescentric opacities gradually extend until their ends join and form a ring. The choroid, ciliary body and retina undergo degenerative changes, and their blood vessels become atheromatous. The lens increases in density, becomes flatter, and loses its elasticity, the nucleus assumes amber color, and small opacities appear. The zonule of Zinn is weakened, resulting in a tendency to dislocations of the lens.

Physiology.

The eyeballs may be considered as hollow, spherical boxes, blackened upon their inner surfaces, and having a system of convex lenses and transparent media, which unite the rays of light, forming inverted images of external objects, upon a special nervous membrane—the retina—which appreciates both intensity and color. Each eyeball, therefore, resembles a camera obscura. Images formed in the bottom of the eye may be seen by removing the sclera and choroid behind and leaving only the retina.

The impressions perceived by the retina are conveyed to the brain by the optic nerves, producing the results we call *vision*. The exact way in which our visual perception is gained of an object, single and erect from its two inverted retinal images, cannot be satisfactorily explained. We know, however, that the two eyes act in perfect harmony, and that the images are

symmetrically disposed on the two retinæ, and are combined into a single impression. The two retinal images are slightly different, the eyes being separated sufficiently for each to command a different view. Our ideas of *solidity* result from the union of the two images; our ideas of *distance* from the muscular efforts required to see distinctly and from experience.

The iris, with its central perforation, acts as a diaphragm regulating the amount of light admitted into the eye, by what is known as the reflex movement of the iris, the pupil contracting in a strong light and dilating in a feeble one.

The rays of light coming from any object, when entering the eye, pass through the cornea, aqueous humor, lens and vitreous before they reach the retina at the bottom (fundus) of the eye. As the light rays pass through these media they are bent (refracted) from their original course and united (focused) in the perfectly shaped eye, on the retina. It is absolutely necessary that they be focused upon the retina to form a perfect image upon that membrane. If the focus be at any point not on the retina, a blurred image results, and vision of course is indistinct. To see perfectly, it is further necessary that the focus be formed on the most sensitive part of the retina *(macula lutea)*. The retina is sensitive to the impressions of light throughout, but especially so near the posterior pole, and therefore, when accurate vision is desired, the eyes are so directed by the ocular muscles that the light is focused on the macula.

Rays of light coming from any point of illumination, however distant, are divergent, but as the pupil ordinarily is only about two lines in diameter, rays coming from a distance more than twenty feet are so slightly divergent when they enter the eye that the divergence is not recognized. So, for all practical purposes, rays coming from a distance of twenty feet or more may be regarded as coming from an infinite distance, and, therefore, as being parallel. In the ideally perfect eye parallel rays are focused by its refractive media upon the macula, and a perfect image is formed upon the perceptive layer of the retina.

When rays enter the eye, coming from a distance less than twenty feet, they are perceptibly divergent, and the shorter the distance the greater the divergence. It will therefore be seen that the refractive media must undergo a change, *i.e.*, increase the refractive power sufficiently to unite the divergent rays on the same place that the parallel rays were focused. This change the eye is capable of making, and it is called *accommodation*, because the eye can be adjusted or accommodated for different distances. The change is brought about by the ciliary muscle contracting. The suspensory ligament is in this way relaxed, and the lens, of its own elasticity, is rendered more convex, chiefly on its anterior surface. The iris is at the same time pushed forward, and the pupil contracted. The changes thus produced in the refracting media greatly increase the refractive power, accurately focusing divergent rays. There is a point, however, where the divergence is so great that the utmost effort at accommodation fails to unite the rays on the macula. This is the *near point* of distinct vision, and its distance from the eye gradually increases with age, owing to physiological changes in the lens, diminishing its elasticity. By means of accommodation the eye sees everything distinctly, from within a few inches to fifteen or twenty feet away, beyond which it is unnecessary, as the vision is perfect with the media in a passive condition.

While viewing distant objects, the axes of the eyes are parallel, but near objects require a certain amount of convergence to allow the focus to be formed upon the macula of each eye. The interal rectus is the principal muscle concerned in the act of convergence, but the other ocular muscles are more or less called into action to maintain a certain position or change the direction of the eye. When we consider that six muscles control the movements of each eye, and while viewing near objects each eye must be accommodated and converged so that a perfect image may be formed on a corresponding point in the retina of each, we can but wonder how it is possible for this complicated muscular action to be maintained for any great length of time in a normal state of perfection, much more when some portion of the delicate mechanism is defective, and the harmony of action is seriously disturbed.

Errors of Refraction and Accommodation.

Contrary to popular opinion, the perfect eye is the exception instead of the rule. In many cases, however, the defect is so slight that the eyes give very little trouble unless used excessively for close work, especially by artificial light. Very often the defect so materially disturbs vision, and requires such an unnatural strain to overcome it, that a variety of troubles result. The eyes not only feel fatigued and ache, but the lids may swell, or become inflamed, the eyes becoming so sensitive that mere exposure to light will bring on a severe paroxysm of pain. Again severe attacks of headache, dizziness and a host of nervous disorders may follow.

Emmetropia is the term applied to the normally-shaped eyeball.

HYPERMETROPIA, or over-sight, is a condition where the eye-ball is shorter from before backward than it should be, and as a consequence parallel rays of light are not united when they reach the retina unless the accommodation be called into play. A hypermetropic eye never sees at any distance without making an effort at accommodation; hence it is never at rest except during sleep, and the constant strain tends often to produce very serious consequences. In the majority of cases where hypermetropia exists, one eye is more defective than the other, and thus makes the defect much more difficult to be overcome by accommodation. The muscle of accommodation is under the same nerve control as the muscles of convergence, and hence the action of the ciliary muscle calls for a corresponding effort on the part of the converging muscles, and *vice versa*. When, however, one or both eyes are hypermetropic, a greater effort at accommodation is required, and while the eyes are focused for a given point they are converged for a nearer one, and double vision is the result. The double vision is produced by the images being formed at different points on the retina in the two eyes. Under such circumstances distinct vision is only obtained when the image of one eye (the weaker) is suppressed. If the difference in the refractive condition be very great, it will be a comparatively easy matter to suppress the image formed in the weaker eye; but if there be but little difference, one will turn inward, and the image, being formed on a less sensitive part of the retina, is finally ignored.

In the former case, the weaker eye may remain "straight," but in the latter the eye which turns in will soon become permanently "crossed." In this way nearly all cases of convergent squint, or *strabismus*, are produced.

Treatment of Hypermetropia.—The only thing that can be done to relieve this condition is to correct the defect by having the person affected wear convex glasses, which should be adjusted by an oculist who thoroughly understands the subject. The accurate correction of refractive defects is a matter of such great importance that no one but a competent person should undertake to do it.

PRESBYOPIA, or far-sightedness, is a condition that is the result of natural changes due to age. At about forty years of age most people find that they are compelled, in order to see well, to hold their newspaper a little farther from their eyes than formerly. The eyes also feel fatigued much sooner, especially when artificial light is used. This is the result of a diminished power of accommodation, and can be easily relieved by using properly fitted convex glasses.

MYOPIA, or near-sightedness, is the opposite condition from hypermetropia, that is, instead of being too short, the eyeball is too long. Parallel rays unite before they reach the retina, and divergent rays focus without the aid of accommodation. In hypermetropia the defect exists from birth, but in myopia it is usually acquired, although a predisposition, as a weakened condition of the coats of the eye, may be inherited. Close work favors the production of a myopic condition in the eye. Straining the accommodation and convergence increases the tension of the eye, and this interferes with the escape of the venous blood from the interior. As the veins pass through the sclera obliquely, any increase of pressure from within would tend to obstruct the flow of blood through them. The retarded escape of venous blood tends to still further intensify the intra-ocular pressure, and this to increase the myopia. The trouble, once begun, therefore, is very likely to become progressive, unless proper means are promptly employed to stay its further development.

Treatment.—As a myopic should be considered as a "sick eye," no time should be lost in having it cared for by one skilled in the treatment of such difficulties. Unless checked, the defect is liable to go from bad to worse until all useful vision is irreparably destroyed. All strain should be removed as far as possible, and close work abandoned until the progress of the difficulty has been checked. Concave glasses carefully selected should be worn all the time. A full correction of the myopia should be made by glasses for distant vision; and, if the defect be great, about one-half correction for near objects.

ASTIGMATISM (Gr.: *a*, without, and *stigma*, a point).—In this condition the rays of light entering in one meridian are focused at a different point from those entering in another meridian, the meridians of greatest difference being at right angles with each other.

In simple *myopic astigmatism*, one meridian is emmetropic (normal) and the meridian at right angle is myopic. *Simple hypermetropic astigmatism* has one meridian emmetropic and the other hypermetropic. *Compound myopic astigmatism* has both meridians myopic, but one more than the other. *Compound hypermetropic astigmatism* has both meridians hypermetropic, but one more than the other. In *mixed astigmatism* one meridian is myopic and the other is hypermetropic.

On account of the inability to focus all meridians at once in astigmatism, the defect is a source of much greater difficulty, and its correction is far more important than either hypermetropia or myopia. Neither convex nor concave glasses will correct astigmatism, because, the surface of the glass being curved equally in all meridians, when a glass is found that will correct one meridian, the other is either corrected too much or too little. A glass is required that will correct one meridian and leave the other unaffected. This is found in what is called the cylindrical glass, the shape of which shows it to be the segment of a cylinder, that is, in the direction of the axis of the cylinder the glass is the same thickness throughout, but its surface is curved in a direction at right angles with the axis. A cylindrical glass may be either convex or concave. The ordinary convex and concave glasses are spherical in shape. Compound astigmatism is corrected by using a lens that is ground spherical on one side and cylindrical on the other. Mixed astigmatism is corrected by one ground concave-cylindrical on one surface and convex-cylindrical on the other, with the axes of the cylinders at right angles with each other.

Diseases of the Eye and Their Treatment.

Diseases of the eye are so numerous and their diagnosis so difficult, that it requires long study, special training and experience to recognize and treat them with safety and success. Simple troubles will usually recover without treatment if not meddled with, but may ultimately prove serious if allowed to go unchecked or become aggravated by harsh or improper remedies. Grave difficulties may be overlooked as such, until vision has been permanently impaired or destroyed. In view of these facts, it is considered unnecessary if not dangerous to outline the symptoms and treatment of the various eye diseases in this article. Nevertheless, a few hints with reference to the handling of some of the simpler affections, conduct in emergencies, and the care of the eyes, will not be out of place.

If a foreign body should get into an eye, the tears will quickly begin to flow freely, and, in many cases, will wash it out. But if the substance be rough and angular, it may be imbedded in the cornea or the folds of the conjunctiva. When a foreign substance is supposed to be in the eye, the cornea should be thoroughly inspected by aid of a convex lens, if at hand, to concentrate the light upon the eye. The body may be so small as to escape detection with the unaided eye, but sufficient to cause great pain and dangerous inflammation. The best method of removing substances from the cornea, when a surgeon cannot be had, is to sharpen a lead pencil very fine, and, standing behind the person seated in a chair, steady the eye and separate the lids with the left hand, and gently pick it out with the point of the pencil. After removal of the foreign body, the eye should be rested, bathed in warm water if irritable, and the person instructed not to rub it. In case nothing be found in the cornea, the lower lid should be drawn down by placing the ball of the thumb on the cheek below, and, by pressing downward, the inner surface of the lid exposed. This should be carefully examined, and, if nothing is found, the upper lid should be everted, as shown in Figure 37, by seizing the eyelashes at the

middle of the lid, and, directing the person to look down, pulling the lid downward and outward, then placing a pencil or match on the lid about half an inch from its edge and gently pressing downward while the edge is lifted upward and over the pencil by means of the lashes. If anything is discovered on the upper or lower lid, it can be readily removed by the corner of a handkerchief being twisted to a point and used as a swab to brush it off.



Fig. 37. Method of Turning the Upper Lid.

If the conjunctiva becomes reddened from any cause, it denotes, if long continued, that inflammation has been established; this may be confined to the conjunctiva or be a complication of some deep-seated trouble. It is not safe to tamper in such cases, but if a surgeon cannot be had at once, use nothing but simple remedies until professional advice can be secured. Warm salt water (one quarter teaspoonful to pint) is a safe remedy in all inflammatory conditions of the eye, and if used for ten or twenty minutes three or four times daily, will relieve most acute affections of the lids and conjunctiva. All patent eye-washes should be avoided, because most of them contain acetate of lead, and if this is employed when there is an abrasion of the cornea the lead will be deposited and a permanent opacity remain.

Should the warm salt water not prove sufficient until a physician can be seen, bathe the eyes in a weak solution of alum or boracic acid (two to five grains to ounce).

As a rule, so long as the vision remains perfect there is nothing dangerous affecting the eye; when, however, sight is impaired, an oculist should be consulted as quickly as possible.

For the first twenty-four hours cold applications are advisable in all injuries of the eye, especially of the lids and conjunctiva; but after that time has expired, warm dressings are usually followed by the best results.

When mortar, lime or an alkali by accident gets into the eyes, they should be quickly washed with vinegar and water (one part to eight or ten). After being thoroughly cleansed, if any part of the conjunctiva is found eroded, fresh castor oil or vaseline should be applied over the raw surface, and care taken not to allow the lids to "grow" to the eyeball. If the conjunctiva be very much injured, the lids should be kept from coming in contact with the eyeball by a piece of cotton soaked in oil. In cases of injury from acids, the eyes should be washed immediately in bicarbonate of soda (salaratus) and water (one part to ten) and then dressed as a burn.

THE EAR.

Anatomy.

The anatomy of the ear is usually divided, for the sake of convenience, into that of the external, middle and internal. The external ear embraces the auricle and exterior auditory canal; the middle ear the *membrana tympani*, cavity of tympanum, mastoid cells and eustachian tubes; the internal ear the vestibule, semi-circular canals, cochlea and auditory nerve. The auricle is the external funnel-shaped appendage attached to the malar and temporal bones by elastic fibres. It consists of fibro-cartilaginous framework closely covered by perichondrium and skin. From the lower end of the cartilage a projection extends, formed principally by the skin, the lobe of the ear. The outer edge of the auricle is called the *helix;* within this a depression, the *fossa navicularis*, at the inner edge of which is another ridge, the *anti-helix*. In front of the opening of the auditory canal is a projection, the *tragus;* opposite this on the other side of the canal is another projection, the *anti-tragus*. The concavity around the orifice of the canal is known as the *concha*. The triangular depression above the concha is the *fossa triangularis*.

The *meatus auditorius externus*, external auditory canal, extends from the auricle to the membrana tympani forward and inward, by a crooked course; average length about one inch. The outer one-third is cartilaginous, continuous with cartilage of the auricle. The inner two-thirds is formed by the bony canal in the temporal bone. At the bottom of the canal the membrana tympani is inserted in the tympanic groove, *sulcus tympanicus*. The membrane is placed obliquely, and hence the anterior and inferior walls of the canal are longest. The canal is lined by integument containing soft hairs, sebaceous and ceruminous glands. The secretion of the glands, corumen (wax), is chiefly fat and coloring matter.

The *membrana tympani*, or *drum-head*, separates the auditory canal from the tympanic cavity. It is so obliquely placed that the upper border is about a quarter of an inch nearer the entrance to canal than the lower. The posterior border is about one-fifth of an inch nearer than anterior. It is ellipsoidal in shape, with its long axis (one-third of an inch) downward and forward. At the upper portion, the short process of the malleus shows as a conical protrusion, from which

extend two folds, the anterior and posterior. The membrane is slightly concave externally. The deepest concavity surrounds the end of the handle of the malleus, and is called the umbo. The membrane is inelastic, and about $\frac{1}{170}$ inch in thickness. It is composed of three layers, a middle fibrous layer, covered externally by skin of auditory canal, and mucous membrane of tympanum internally. The middle layer has two layers of fibres, an outer radiating and an inner circular.

When viewed through the auditory canal, the healthy membrane presents a delicate bluish-gray color and is translucent. The short process of the malleus appears as a whitish tubercle, near upper margin, and the handle of malleus as a light stripe, running from this downward and backward to centre of the membrane. The "light spot" is a bright triangular reflection from the oblique surface of the membrane. Its apex points to end of handle, and its base toward margin.

The cavity of tympanum, or drum of the ear, is an irregular-shaped space, lined by mucous membrane, which is continuous with that of eustachian tube and pharynx. The antero-posterior diameter is about ½ inch; the anterior-vertical, ¼ inch, and the posterior-vertical, three-fifths of an inch; transverse, one-eighth to one-sixth; opposite drum-head, one-twelfth inch. The eustachian tube opens into upper part of anterior wall. Above the tube is the canal for the tensor tympani muscle, separated from it by a thin plate of bone. The posterior wall separates the tympanum from the mastoid cells, the openings into which are found at the upper part, close to the roof. The drum-head forms most of the outer wall. The inner wall forms outer wall of the labyrinth. An oval opening *(fenestra ovalis)* is found opposite support of drum-head in the inner wall which leads into the vestibule. The opening is closed by a membrane upon which rests the base of the stapes. A smaller opening below *(fenestra rotunda)* leads into the cochlea. The latter opening is closed by a membrane called the *membrana tympani secondaria*. Anterior, and between the fenestræ, is a rounded projection, *the promontory*. This corresponds with the first whorl of the cochlea. The upper wall is very thin and separates the tympanum from cranial cavity.

The bones of the ear (ossicles) are three in number — *malleus* (Lat. for *hammer*), *incus* (anvil), and *stapes* (stirrup). They form a chain across tympanum from membrana tympani to membrana ovalis. The malleus presents a head, neck, short and long process, and manubrium (handle). The incus has a head, long and short process. The head articulates with malleus, and is joined to roof of tympanum by a ligament; short process runs back to articulate with posterior wall of tympanum. The long process descends parallel with and behind the handle of malleus and terminates in a lenticular tip which articulates with the head of the stapes. The stapes has head, neck, crura and base. The latter rests in fenestra ovalis.

The *tensor tympani muscle* arises from the periosteum of the upper wall of its canal and upper wall of cartilage of eustachian tube, and from border of sphenoid. Before leaving the canal it becomes tendinous, and as it enters the tympanum turns nearly at right angle and is inserted into the anterior half of the inner side of malleus between short process and beginning of the handle. It draws the handle inward and makes the membrana tympani and the ligaments of the ossicles tense; at the same time the long process of the incus rotates inward with the malleus handle, and presses the stapes against the oval window and the fluid of the labyrinth. The *stapedius muscle* originates in the cavity of the *pyramid* and is inserted in the neck of the stapes. It is supposed to depress the base of the stapes and compress the contents of labyrinth.

The mastoid cells consist of a number of irregular cells contained in the mastoid process of temporal bone. In the upper part of the process a single large cell is found, the *mastoid antrum*. This communicates with the lower cells and the tympanic cavity. The eustachian tube is about a line in diameter, and extends from the pharynx upward, outward and backward to tympanum. It has a cartilaginous and bony portion. The tympanic end is bony, about half an inch long. The narrowest part of canal is at *isthmus*, the juncture of cartilaginous and bony parts. The pharyngeal orifice is trumpet-shaped, and is found in posterior nasal space just above floor of nostril. Its mucous membrane is continuous with that of the pharynx and tympanum.

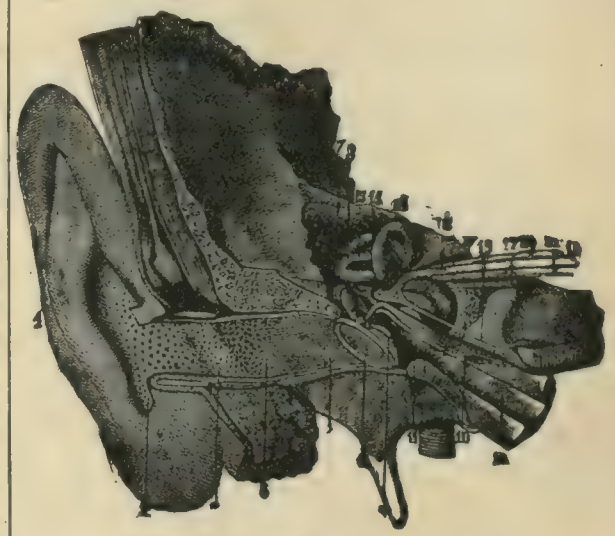


Fig. 38.

1, Auricle; 2, opening of ext. auditory canal; 3, bony part of canal; 4, cartilaginous portion; 5, ceruminous glands; 6, membrana tympani; 7, incus; 8, malleus; 9, manubrium; 10, tensor tympani muscle; 11, 12, eustachian tube; 13, 15, semi-circular canals; 16, cochlea.

The internal ear, or *labyrinth*, contains the essential parts of the hearing apparatus, the ultimate filaments of the auditory nerves. It embraces several bony cavities contained in the petrous portion of the temporal bone. Within these osseous chambers are membranous sacs which receive the distribution of the nerve. The sacs and intervening spaces are filled with a clear fluid. The bony cavities are three in number, the vestibule, semi-circular canals and cochlea.

The *vestibule* is an irregular ovoid cavity, situated internal to the tympanum. Its height and depth, antero-posteriorly, is about one-fifth of an inch, and its transverse diameter about one-tenth of an inch. The *semi-circular canals* are three C-shaped canals, starting from the vestibule and returning to it

again; are from one-twentieth to one-fifteenth of an inch in diameter. Length of posterior verticle, eleven-twelfths inch; anterior verticle, four-fifths; horizontal, one-fifth inch.

The *cochlea* (snail) is a tube that coils around a central pillar or axis, and tapers toward one extremity where it ends in a blind sac. It is about one and one-half inches long, one-tenth of an inch in diameter at the beginning and one-twentieth of an inch at the end; makes two and a half turns from below upward from left to right in right ear, and *vice versa* in the left. The cupola, or apex, is directed forward and outward. A thin wall separates the cochlea from the carotid canal in front. Internally it is in contact with the blind end of the internal auditory canal. It projects slightly, as the *promontory* on the inner wall of the tympanum. Its *axis*, *spindle* or *modiolus*, is made up by the inner walls of the tube and a central spongy bone substance; gradually diminishes in size from base to apex. Diameter at base, one-eighth of an inch; at apex, one-fiftieth of an inch; length, one-sixth of an inch. Base rests upon the bottom of the internal auditory canal. The apex is formed by the inner wall of the last half whorl, ending in a thin section of funnel, the *infundibulum*. The walls of the cochlear canal are lined by a very delicate periosteum.

The bony cavities of the vestibule and semi-circular canals contain membranous sacs which correspond in shape to the osseous chambers in which they are enclosed.

The utricle (Lat., *utriculus*, a little leathern bottle) is a flattened elliptical tube resting on the inner wall of the vestibule. The outer wall is free and is separated from the outer wall of the vestibule by a narrow space filled with endolymph.

The membranous semi-circular canals are of the same shape as the body canals, and open into the utricle by five openings, the same as the osseous communicate with the vestibule. The membranous fill the osseous canals at the openings, but in other parts considerable space exists between the two, which is filled by connective tissue, vessels and fluid. The walls of the utricle and canals are very thin and delicate.

The auditory nerve, or *portio mollis* of seventh nerve, begins by two roots in the medulla oblongata. One nucleus of origin is in floor of the fourth ventricle; the other is in the *crus cerebelli ad medullma*. The roots are in communication with the gray matter of the cerebellum and border of *calamus scriptorius*. The nerve winds around the restiform body, from which it receives filaments, and then passes forward in company with the *portio dura*, or facial nerve, to the posterior border of crus, and enters the internal auditory canal, where some fibres connect them together. At the bottom of the canal the auditory nerve divides into two branches, one passing to the vestibule and the other to the cochlea. The nerve, like the optic, is one of special sense, receiving and transmitting the impressions of the waves of sound.

Physiology.

The ear, as a whole, is a very complicated structure. The sound-waves are collected by the auricle, reflected into the auditory canal, are received upon the membrana tympani, which is thrown into corresponding vibrations; these are carried by the chain of bones across the tympanum to the fluid of the labyrinth, and thence to the auditory nerves and through them to the brain, where they are recognized as sound. The membrana tympani, by the aid of its tensor muscle, can be maintained at various degrees of tension adapting it to different kinds of waves.

The atmospheric pressure within the cavity of the tympanum is governed by its communication with the mastoid cells and pharynx. The elements of the terminal auditory apparatus in the cochlea are supposed to be tuned to vibrate in harmony with all the different notes in our musical scale. The semi-circular canals are thought to preside over the equilibrium of the body, and to be concerned little, if any, in the function of hearing. There are still a number of points in connection with the physiology of audition remaining unsatisfactorily explained.

Diseases of the Ear and Their Treatment.

The statements made in the article on the eye are also applicable to the ear. The apparatus is so delicate that any disturbance of function should be referred to a skilled specialist for correction. Many erroneous ideas still exist in the public mind, which seriously interfere with the work of the aurist. The ear is regarded by some as so "delicate" that nothing can be done to alleviate its disorders, and cases of partial deafness are allowed to go uncared-for that could be readily cured.

The so-called "rising" in the ear, followed by an offensive discharge, is neglected because "it is dangerous to meddle with the ear" or stop a discharge from it. Many children are permitted to go in this manner without attention, at the imminent peril of their lives and with a serious impairment of hearing. The inflammation which causes such a discharge is located in the tympanic cavity, and is very liable to extend into the mastoid cells and the cranial cavity, resulting fatally. No possible harm could result from stopping the discharge, and no time should be lost in endeavoring to check it.

Children often put beans, coffee grains and other small substances into their ears, and the friends, in attempting to remove the foreign body, push it further into the canal. No instrument should ever be used, except by an aurist, to remove anything from the ear. The only thing that can be safely employed for this purpose is a syringe.

In case an insect gets into the ear, water should be poured in to kill it or cause it to come out. If this should fail to accomplish the desired result, a physician should be called.

If the ear itches or attracts attention in any way, it should be examined by a surgeon, or washed out, or a little vaseline applied on a pleget of cotton; and on no account should it be picked at with a hairpin, ear-spoon, or other hard instrument.

One of the most common forms of deafness is caused by an extension of inflammation from the throat to the ear through the eustachian tube. The first thing noticed by the person is a ringing noise in the ear and a slight impairment of hearing. These symptoms may come on so gradually as not to attract attention for some time. The disease can be checked in the early stages, and it is therefore important to attend to it as soon as noticed.

Children frequently suffer with "earache," and as the attacks often occur in the night when it is inconvenient to call medical

aid, every family should know how to render prompt relief. The pain is usually indicative of inflammation in the middle ear which has begun in the pharynx and extended to the ear. Hot cloths should be applied to the throat and hot water poured into the ear. The water should be used as hot as can be borne, and if it fails to relieve, a small quantity (⅛ grain) of morphine, dissolved in a few drops of warm water, should be dropped into the ear while the head is inclined so as to allow it to run in. It is not advisable to use oil or laudanum, because the oil may clog up the canal, and the alcohol in the laudanum will irritate it.

FEVERS.

FEVER is that morbid condition of the body characterized by increased heat, thirst, loss of appetite, dryness of skin, accelerated pulse, hurried respiration, muscular weakness, more or less pain and wakefulness, and general functional disturbance.

Fever may be symptomatic—as when it is the result of inflammation in some part of the body—or it is said to be ideopathic, or essential, when it is not the result of some other ailment, but of some specific poison which has entered the body, as measles, typhoid fever, small-pox, etc.

The temperature of the body in fever will range from 99 to 108 degrees. This is told by the use of a thermometer made for this purpose, called a clinical thermometer, which may be placed in the arm-pit or under the tongue, and allowed to remain there for about three minutes.

The temperature may run higher in some fevers without alarm than in others: 105 degrees is a high fever; 106 degrees is dangerous; 108 degrees, if long continued, is fatal. For instance, 104 degrees in typhoid fever is a high temperature, while it is comparatively low for scarlet-fever.

Heat is a stimulus, whether it originates within or without the body; hence the increased action of the heart.

The pulse of an adult in health ranges from 70 to 80 beats per minute. In fever it may range from 90 to 140 or 150. A pulse of 120 indicates a high fever; 130, if long-continued, is a dangerous symptom.

In a normal condition, there are about four beats of the pulse to each inspiration. Hence, the respiration in all fevers is hurried in proportion to the increased pulse, and the pulse rate should go up and down with the temperature. It is a bad omen to find a high temperature with a low pulse, and *vice versa*. Also, it is a bad symptom to find a rapid pulse with a low breathing rate.

Pain alone may produce all the symptoms of fever, and upon the removal of the cause of pain the fever will subside. The great object to be sought in the treatment of fevers is the lowering of the temperature, which can be accomplished by a free use of cold water. If not advisable to use the pack—which consists in rolling the patient in a sheet lightly wrung out of cold water—frequent sponge-baths may be given instead.

The higher the temperature, or body-heat, the greater the evaporation. The water of the body is carried away very rapidly. Here we see the great importance of free use of cold water as a drink, which not only replaces the water lost, but also lowers the temperature of the body. Lowering the temperature lowers the pulse in force and frequency, and also diminishes the breathing rate.

The heart's action may be controlled by the use of the tincture of aconite root or the tincture of belladonna in doses of about five drops; or the tincture of veratrum viride in doses of from two to three drops every three or four hours. Some prefer smaller doses given with greater frequency, which can and must be done when the stomach is at all irritable.

If there is much nervousness, the aconite should be given; if pain, belladonna is better; if at all desirable to produce nausea, as in pneumonia, veratrum viride may be given.

In all fevers there is more or less increased destruction of tissue; hence the importance of keeping all of the emmetories, the bowels, kidneys and skin, active or open to carry out all this increased debris of the system, thus keeping the blood pure.

It is also of vital importance that the patient should have an abundance of cool, fresh air, and sufficient nourishment to keep up the strength of the organs, especially the heart.

Fevers are generally divided into three classes: those in which the febrile condition continues from the beginning to the end, called *continued fevers;* those which come and go with more or less regularity, called *periodical fevers;* and those characterized by an eruption on the skin, and called *eruptive fevers.*

Typhoid Fever.

TYPHOID FEVER is a disease caused by bad sewerage, the odor from old privy vaults, or drinking water contaminated with human excrement, especially from typhoid-fever patients. It is a low grade of fever, which attacks a person but once. It comes on so gradually that it is hard to say when the disease began. It generally runs its course in spite of treatment. Treatment may save a case from a fatal termination, or reduce its duration to the minimum, which is three weeks. At first the patient complains of fatigue, loss of appetite, mental dulness and lack of interest in his work. There may be diarrhœa. Pulse ranges from 90 to 110 per minute; temperature from 100 degrees to 104 degrees. The skin is dry and of a bronze hue. There may be bleeding from the nose. The tongue will have a brown coat, which, if the patient is not given an abundance of water, will become very dry. The lips and teeth collect a dark brown or blackish, gum-like matter, called *sordes.* In

the second week the patient may become more or less delirious, and, if not closely watched, may get out of bed, in consequence of delusions. It is a common thing for the patient to imagine himself away from home. Little red spots, like flea-bites, may make their appearance upon the abdomen. If there has been diarrhœa, the abdomen may become distended with gas. Hemorrhage from the bowels may take place. During the third week any or all of these symptoms may become aggravated.

If the patient does well, at the end of the third week he will begin to improve, the tongue will clean, the skin become moist or wet with perspiration, and the mind perhaps become clear. He has not asked for anything, but now he may express a desire for food or drink.

The treatment for this disease, in a mild case, is simply good hygienic surroundings and care. On account of the low mental condition, he may not be conscious of his wants. Hence he may never call for water or food.

He should have milk and other nutritious food in such quantities as he can digest, at short but regular intervals.

The bowels will need attention. If there be diarrhœa, some mild astringents may be given, as fluid extract of logwood. If the bowels are distended by gas, spirits of turpentine may be given. If constipation ensue, some mild laxative, as castor-oil, syrup or tincture of rhubarb, or an enema of tepid water, will relieve the symptoms. The temperature and circulation can be controlled, as laid down under the head of fevers in general.

In bad cases any or all of the symptoms may be aggravated, and will need special attention.

Young persons are more likely to recover than persons advanced in life. They are also more liable to contract the disease.

Typhus Fever.

TYPHUS FEVER is a disease arising from the crowding of human beings into a small space, as in emigrant ships, in prisons and in the poorer quarters in large cities. Typhoid fever is produced from human effete matter thrown off from the bowels. Typhus is liable to become epidemic after famine or excessive privation of any kind. When once originated, it is contagious in densely populated districts; thence it may spread to cleaner and more healthy parts of the city.

The attack is more sudden and its duration shorter, and the temperature and pulse somewhat higher than in typhoid. The eruption on the skin is somewhat like measles. Gangrenous spots are liable to appear, and may assume a very serious aspect. The tongue becomes contracted, dry and black; the bowels are constipated; no appetite; delirium is present, and is followed by coma, in which condition the patient may sink and die, or gradually pass into a more natural sleep, from which he may wake convalescent.

Treatment similar to typhoid. Personal cleanliness; perfect ventilation; good, easily-digested food; milk in its various forms; an abundance of cold water. The circulation and temperature are to be controlled as directed in fevers in general.

Malarial Fever—Ague.

INTERMITTENT FEVER is one form of malarial fever. It has cold, hot and sweating stages, with a normal interval following. The patient may go through these stages every day, every other day, or every third day. This disease is caused by decaying vegetable matter. It prevails in new countries, river bottoms, districts which overflow, or in the neighborhood of canals or mill-ponds. It may prevail in houses with bad cellars, or where the sills and floors are in a state of decay. It does not make its appearance while the land is under water, but when the water recedes and exposes the half-rotten vegetable matter to the sun. Some physicians suppose this disease to be caused by a microscopic vegetable germ which enters the system, contaminating the blood.

Intermittent fever is not self-protecting nor self-limiting. Some persons are never free from it while they reside in a malarial district. It runs an indefinite course if not checked by remedial agents. If not treated, the blood of the patient becomes impoverished, the lips pale, the skin sallow, the muscles weak and the body emaciated. The spleen becomes large, vulgarly called an *ague cake*. Some persons may become acclimated, improve, and finally get well without medicine, but the majority would go from bad to worse and die, or become so weak as to have no physical endurance or resistance, and would finally succumb to some other disease which they, in the depraved state of the system, are not able to withstand. The system may become so surcharged with the poison as to cause death from the severity of the chill before reaction or the fever stage comes on. This is what is called a "congestive chill." Every chill is in reality a congestive chill—that is, during the chill some internal organ is congested, or contains an abnormal amount of blood; hence the variety of symptoms during this stage. One may have difficulty of breathing because of congestion of the lungs; another may have pain in the head; another, in the stomach or heart.

Instead of the cold, hot and sweating stages, the patient may have severe periodical pains along the course of a nerve. This constitutes one form of neuralgia. At another time, or another patient, instead of suffering from either chills or neuralgia, may have a periodical diarrhœa, or there may be hemorrhage from some part of the mucous membrane.

Treatment.—The night-air contains the malarial poison in greater abundance than that of the day; so that if persons must live in a malarial region, they can lessen the liability to contract disease by being in the house before sunset, and remaining there until after sunrise in the morning. An attack may be induced in some persons by eating anything which is difficult to digest. It becomes those who are susceptible to the influence of this virus to look well to their food.

Some preparation of Peruvian bark enters into almost every formula for the cure of intermittent fever. Sulphate of cinchona is the cheapest, but it is more likely to disturb the stomach. Cinchonidia is cheaper than quinine, and is like it in appearance. It is not as likely to disturb the stomach as the sulphate of cinchona, but more so than quinine. Quinine is more used because it is less irritating to the stomach, though it is of a higher price. Quinine is the king in this realm of remedies. If the interval between the paroxysms is short, we must give larger doses, and closer together. When the paroxysms are farther apart, we can give smaller doses—three or four grains every two hours. We believe we shall have better effect from small doses close together than by giving doses of five or

ten grains, four or five hours apart. We need, in ordinary cases, to administer from twenty to thirty grains between the paroxysms. The taste of quinine can be disguised by putting it in cold coffee or tea. A few doses of bromo-hydric acid will prevent the disagreeable effects and the ringing in the ears produced by quinine.

Occasionally we meet with persons who cannot take quinine. We can use salicine in the same doses as quinine, or a little larger doses even.

Arsenic is used in chronic forms of the disease, and may be used where quinine cannot be employed.

Nux vomica or strychnine may be used in combination with other remedies.

Remittent Fever.

REMITTENT FEVER is by some authors treated under the head of intermittent fever, considering it simply another form of the same disease. Its origin appears to be the same as that of ague, but the disease is of such intensity, and the stage of febrile excitement lasts so long, as to crowd out the cold and sweating stages. In this fever the hot stage is severer in intensity as well as longer in duration. The stomach is so disturbed that it demands the major part of our attention. Vomiting is very distressing to the patient and annoying to the physician. Bile is vomited, and thirst is very great. The skin and the white of the eye become yellow. This is a more serious disease than the intermittent type. The bile may be absorbed and the urea not thrown off. Both contaminate the blood. The patient may sink into a low typhoid condition and become delirious. This condition is called typho-malarial fever.

In treatment the stomach first demands attention. Aromatic sulphuric acid may be given in five-drop doses in water every hour or two. Or ten drops of dilute muriatic acid and five drops of the tincture of aconite root in water every two or three hours may be given.

To control the vomiting it is at times advisable to apply a mustard poultice over the pit of the stomach. Lemons are also useful. Either let the patient suck the juice or drink a little strong lemonade. After we have controlled the stomach symptoms, the treatment should be as advised in intermittent fever.

Yellow Fever.

YELLOW FEVER originates in hot, low, filthy localities. Having once originated, it may spread, as other contagious diseases—may be carried a great distance in clothing or goods. Exposure and dissipation are strong predisposing causes. Non-acclimated persons are more liable to be attacked than natives. It is more fatal among the white population. The death-rate is high. Patients recovered from this fearful disease enjoy immunity from attacks in future. The attacks generally begin rather suddenly. The temperature ranges from 101 to 107 degrees. The symptoms are a dry skin, rapid pulse, thirst, frontal headache, pain in the back and calves of the legs, and vomiting. At first, the vomited matters consist of mucus and of portions of food. There is a cream-like coat upon the tongue, and tenderness at the pit of the stomach. After a day or two the pains abate, but the vomiting is likely to increase, and the skin becomes yellow. About the fourth day, the vomit contains blood, having the appearance of coffee-grounds, and known as "the black vomit." The urine and stools also contain blood. The tongue becomes dry and black, the pulse rapid but feeble. Delirium and coma now set in.

Death or convalescence may take place at any time. Convalescence may take place so early in the disease as to leave some doubt as to the correctness of the diagnosis, and death may strike the patient down before any of the characteristic symptoms are established. At times blood is found not only in the stools and urine, but the eyes, nose and mouth may bleed profusely, thus rendering the patient the most pitiable object imaginable.

This disease demands the highest hygienic skill. It can be perpetuated by the virus contained in exposed clothing or furniture. Treatment should be according to general principles. Pain and vomiting are best controlled by the hypodermic injection of morphine. Muriatic, nitric and sulphuric acid and quinine are called for.

The convalescence is generally protracted. The yellowness of the skin continues for a long time. At this period the main thing needed is good, judicious feeding and tonic treatment.

Rubeola—Measles.

This is a very infectious febrile disease. As a rule it is experienced but once. Children are more frequently attacked than adults, partly because most adults have, as children, suffered from an attack, and thereafter enjoy immunity from the disease. But it is also true that adults unprotected by a former attack are less susceptible. About two weeks elapse from the time of exposure to the development of the disease. The first symptoms are those of a cold. The patient coughs and sneezes; the eyes are suffused, and a thin mucus flows from the nose. There is a pink appearance of the eye, and during the catarrhal period there is a slight fever. On the third or fourth day the fever is increased, and an eruption begins to make its appearance at the roots of the hair and upon the forehead and temples. The eruption is of minute red spots scarcely raised above the surface, and smooth to the touch. In small-pox the eruption has a sandy or gritty feel. The first attack of small-pox is somewhat like remittent fever—a high temperature with vomiting. In measles it is more like a cold. The fever rises with the eruption. In small-pox it falls. Two days are required for the eruption to become general, and in about three or four days more it begins to disappear in the order in which it came. Now the temperature suddenly falls to the normal, or very near it. The temperature seldom rises above 104 degrees.

At times the lungs become involved to an alarming extent. The cough from the beginning is very annoying, and it is liable to continue for a long time after every other symptom has disappeared. The eyes become inflamed during the catarrhal period, and they so remain long after the patient is well in every other respect. At times the eyelids become granulated. The throat symptoms may also continue for some time, but never become a serious complication, such as that occasioned by scarlet fever.

Treatment.—In this disease, great care against exposure is required. More soldiers, during the late civil war, died from measles than from small-pox, because in small-pox less harm is occasioned by exposure. All the windows and doors may not

be permitted, in the case of measles, to be thrown open, unless it be summer; but from experience we know that the nurse needs be cautioned more against keeping the room too warm, against steaming, sweating and stimulating the patient. If it is an ordinary case, nothing is required beyond securing the greatest amount of comfort. Sometimes the eruption is very tardy in coming out. In such cases, a warm bath is useful in bringing out the eruption. Hot drinks may also be given. Such cases are exceptions, however, and not the rule. A few drops of aconite and sweet spirits of nitre, in water, may lower the pulse rate and temperature, but are generally not required. Syrup of ipecacuanha and syrup of tolu will mitigate the cough. The bowels may need some attention. If there should be a diarrhœa, paregoric may be added to the cough syrup. If constipation exist, syrup rhubarb may be given.

The "*black*" measles is not another disease, but a malignant form of the same, the eruption being attended by small hemorrhages under the skin, analogous to that in the malignant form of small-pox. This condition is attended with danger.

Variola—Small-Pox.

SMALL-POX is a highly contagious, specific fever, which makes its appearance in about two weeks after having been exposed to the contagious influence. One attack secures the patient immunity from the disease in future. The attack begins with a very high fever and intense backache. The pain is in the centre of the back, and is not relieved or altered in the least by any change of position. There may be vomiting as in remittent fever. At first there is no eruption, nor anything, except the peculiarity of the pain in the back, which would lead any one to suspect the true nature of the disease. On the second or third day the eruption makes its appearance at the roots of the hair on the forehead. The eruption is raised above the surface, and gives to the touch a gritty or sandy feeling. If this is looked for diligently, there need be no mistaking small-pox for measles, since the eruption of measles at first is not elevated, but is smooth, while that of small-pox is sharply elevated. This sharp, papillary eruption develops into little vesicles or blisters filled with a watery fluid. About the seventh day these little blisters become filled with pus, hence are called pustules. A peculiarity of these pustules is that the centre is depressed, forming an *umbilicated* pustule. About the tenth or eleventh day the pustule is fully developed, and dries into a crust by the fourteenth day. The mucous membrane of the throat, and sometimes the trachea, is also effected by the eruption. The patient coughs and expectorates a very tough and disagreeable mucus.

On the appearance of the eruption the fever abates and the patient feels much better, while in scarlet fever the temperature increases with the eruption. In small-pox the reverse is true. About the eighth or ninth day, at which time the pustules are developed, the fever rises again. This is termed the *secondary fever*, and is the most dangerous period of the disease. The patient is weaker and has less power of resistance.

The pustules are very likely to destroy the true skin beneath them, hence the *pit*, so commonly seen after this disease. Where the pustules are not so numerous, but stand alone, the eruption is said to be *discrete*. When they are so numerous as to touch each other, it is called *confluent*. Sometimes, instead of the vesicle filling with a watery material, they fill with blood; hemorrhage also takes place from the various parts of the mucous membrane. This form is called *hemorrhagic* or *malignant* small-pox.

Treatment. — From beginning to end the sufferer needs an abundance of cool, fresh air. In ordinary weather windows and doors should be open, provided the wind does not blow directly upon the patient. The neighbors need not object, for the contagion of small-pox is not carried through the air. The virus must be carried from the sick to the well, and whatever can be the means of this transfer of virus (usually in clothing) will communicate the disease, and it cannot be communicated in any other way. An abundance of bland drinks to soothe the irritated throat—such as flax-seed tea, barley-water and milk. Chlorate of potassium may be freely used for the same purpose. The temperature must be treated as stated under the head of fevers in general.

When the pustules are formed, the skin, especially of the face and hands, may be covered with olive oil. It soothes the itching and prevents a too hard crust forming. Some cover the face with mercurial ointment for the same purpose, to prevent pitting. If stimulants are needed, it is not until the secondary fever sets in. This is looked upon as a critical period. The patient needs to be well fed. If the throat is sore, solid food may be out of the question.

The eyes will need at times special care. The room may have to be darkened. A solution may be made of sulphate of zinc, two grains to an ounce of distilled water. A few minims of this solution may be dropped into the eyes two or three times a day to control the inflammation.

Varioloid

Is a modified form of small-pox. One who has had small-pox, or has been vaccinated, but is not fully protected, if exposed to the disease, may become ill with all the symptoms of small-pox, but in a modified degree. The eruption makes its appearance, there being, however, but few pustules, and these are less likely than the pustules of variola to leave scars. No secondary fever is developed in varioloid. But little treatment is needed, and that little does not differ from that of small-pox.

Vaccination—Cow-Pox.

COW-POX is contracted from small-pox in the cow. If matter be taken from the pustule of a small-pox patient and introduced into the cow, in due time the eruption will make its appearance upon the udder. Pus taken from a pustule on the udder of the cow and introduced under the skin of a human being will produce the disease of *kine* or *cow-pox*, which is believed to protect the subject against an attack of true variola. At the point where the virus has been introduced, a vesicle appears, which in a day or two develops into a pustule. This pustule is depressed in the centre.

The course is precisely the same as in small-pox, only that the pustules are confined to the one point where the virus was introduced into the system. The fever is insignificant in comparison with that attending small-pox. Why the disease should be thus modified by passing through the cow, we do not know.

But, knowing that small-pox protects a person from any future attack, and knowing that cow-pox is small-pox, we can readily understand why cow-pox protects against small-pox.

If by introducing an insignificant disease the human family can be protected from such a loathsome, disfiguring, devastating scourge as small-pox, he who opposes it should be considered a misanthrope, and should be treated as such by all intelligent citizens.

Vericella—Chicken-Pox.

CHICKEN-POX is a contagious but an insignificant disease, generally confined to children. The fever is so mild as to need no attention. The eruption at first consists of pimples with inflamed bases, which develop into blisters, or vesicles, as large as split peas, or even sometimes as large as copper coins. These become filled with a milky fluid, and finally break and dry up into crusts or scabs. The eruption comes out in successive crops, so that in a well-marked case it can be seen in its various stages at the same time. The eruption lasts about a week, and in about another week the crusts fall off. This disease, like the other eruptive fevers, protects against itself. No treatment beyond good nursing is required.

Scarlatina—Scarlet Fever.

SCARLET FEVER is a highly infectious malady, attacking children chiefly; not because the child is any more susceptible to its influence, but because the older children and adults have all had the disease or are not susceptible to it. Why some should pass through several epidemics without taking it, and then some time in after life should contract the disease, we do not know.

The beginning of the disease is generally sudden. A child exposed a week ago has been in perfect health until now. The attack begins with a high temperature, headache, vomiting, and sore throat. Young children may have convulsions at the very beginning of the attack. Within the next twenty-four hours a fine red rash may be seen over the chest. Within a few hours it may make its appearance on the arms, lower part of the abdomen and upper and inner part of the thighs, and become general within the next twenty-four hours. It will take three or four days to fully develop. The temperature increases with the rash. It may rise to one hundred and six degrees without much alarm—even one hundred and seven or one hundred and eight—but if this temperature long continues we may look for an unfavorable issue. The eruption begins to fade about the fifth or sixth day, and the temperature and pulse should fall as the eruption fades. We may expect the rash to disappear about the tenth day of the disease.

This disease may be so mild as to demand no attention, there being nothing but a red rash and very little fever. At another time the throat symptoms are the only ones of gravity. The throat trouble may be of secondary consideration, or the swelling may threaten suffocation. Ulceration of the throat may become serious. This form has been called *malignant or putrid sore throat.*

Treatment.— The patient should be removed from all unprotected persons. Cold water may be used to sponge the patient. We must keep down the temperature to the lowest point. Aconite and belladonna may be used to lower the temperature. Chlorate of potash for the throat (not only as a gargle, but we may administer from forty to sixty grains in twenty-four hours). The room should be cool and well ventilated. A small quantity of carbolic acid may be put into the water used in bathing.

When the skin begins to scale off, it will be well to anoint the patient with vaseline containing five per cent of carbolic acid. The kidneys will need attention, as well as the ears. It is not uncommon for a child to get well of this fever and die of dropsy. Many deaf persons owe their misfortune to the sequels of scarlet fever. Patients convalescing from this disease need as much if not more care than during the higher stages of the fever. A cold may produce irreparable mischief.

Diphtheria.

DIPHTHERIA is a contagious febrile disease, during which an ash-colored false membrane forms, generally in the throat. It may form in the nose, in the larynx or trachea. The first symptom is usually a chill, followed by high temperature (105 or 106 degrees Fahrenheit), and more or less swelling of the parts involved, threatening death by suffocation or inability to swallow. There is a peculiar odor of the breath of the patient. The disease may be communicated by the matter coughed up; hence the necessity of especial care. Handkerchiefs and towels used by the sick of this disease should be properly taken care of. It is better to use old cloths and burn them.

This is a disease of all countries, persons, ages, sexes and conditions, but children are more liable to be attacked, and it is more fatal with them. The mortuary rate is high.

This disease, in a particular case, may be so mild as not to occasion inconvenience to any extent beyond a little sore throat. It may be so severe and the swelling so great as to threaten death by shock or by suffocation in a few hours.

The sequels may be serious; by attacking the kidneys, and interfering with the proper evacuation of urea, the patient may die of uremic poisoning. The throat may become paralyzed, so that the patient cannot swallow, the paralysis extending to the organs of speech. It may extend also to the limbs. The patient, in the majority of cases, recovers from the paralysis within four months, if he survives the acute stages of the disease. Diphtheria is not to be treated wholly as a local disease. The tendency is to loss of strength and death from exhaustion; hence tonics should be administered from the beginning. Quinine is well borne. Two grains every hour or two may be given, or tincture of iron in doses of ten drops every two or three hours in a tablespoonful of water. It will be well to have the patient drink this slowly so that it may have a local effect upon the throat. If the throat is badly swollen a gargle of tincture of iron and water may be used every three or four hours. In all cases of diphtheria a physician should see the patient daily.

Rheumatism.

RHEUMATISM is a constitutional disease, characterized by certain local manifestations. These manifestations are due to inflammation, acute or chronic, of the synovial membrane lining the joints, of certain serous membranes, particularly those of the heart, and of fibrous tissue elsewhere in the body. Rheumatism is classified as *acute articular rheumatism* and *chronic rheumatism.*

IN ACUTE ARTICULAR RHEUMATISM the lining membranes of the joints are inflamed. In the course of the disease cer-

tain complications involving internal organs are liable to arise. The parts more likely to become affected are the serous membranes, the *endocardium* and *pericardium* lining and surrounding the heart.

The attack usually begins suddenly. Sometimes there is a slight amount of fever for a day or two preceding the joint affection; sometimes the pain and tenderness of the joints precede the fever, but usually these symptoms appear together. The disease may attack any joint of the body, and is indeed very seldom confined to one or two. The affected joints are swollen, red and extremely tender. Pain is not so great except when attempting to move, or when disturbed or jarred. The slightest movement causes the most excruciating pain. Swelling is most apparent when the knees, ankles or wrists are the joints involved. The swelling is usually in proportion to the severity of the inflammation. One joint after another generally becomes involved. Sometimes upon attacking a new joint all tenderness and swelling disappear from the joints first involved. The fever ranges in this disease between 102 and 108 degrees. Profuse sweating is a common symptom.

The disease very rarely proves fatal. When it does it is due to the extension of the inflammation to the heart, and the development of *pericarditis*. Even then the number of deaths during the acute attack is very small, but in the fact that the heart is so frequently attacked lies the danger of the disease, for, as explained under the head of diseases of the heart, the great majority of valvular diseases of the heart are due to *endocarditis* developed during an attack of acute rheumatism. Usually, however, the lesion of the valves causes no inconvenience until a number of years afterward. The heart is more likely to become involved, the more intense the disease. Other organs, such as the pleura, the peritoneum and the membranes enveloping the brain, have been known to suffer inflammation during the attack, but it is extremely rare. The head is usually free from pain. The duration of the attack varies from ten days to five or six weeks. There are sometimes relapses. One who has once suffered from acute rheumatism is more liable to subsequent attacks.

Treatment.— Notwithstanding the popularity of salicylic acid, or the salicylate of soda, in the treatment of rheumatism during the last few years, we believe that as much or more may be accomplished by the use of what has been known as the *alkaline* treatment. The alkali, either bicarbonate of potassa or soda, should be given in full doses, every three or four hours. Lemon juice may be added to the dose and taken while effervescing. As soon as the urine is rendered alkaline (which may be told by testing with red litmus paper, which turns to blue if dipped into an alkaline fluid), the dose should be greatly diminished, and taken thereafter only once or twice a day. Tonics are useful. Quinine in two-grain doses may be given. Tincture of aconite applied to the swollen joints often affords relief. Chloroform liniment or soap liniment is also used for this purpose. The salicylate of soda is much employed—perhaps at this time more than any other remedy.

CHRONIC RHEUMATISM differs from the acute variety in the degree of severity of the symptoms, and in their duration. In mild cases the patients are able to go about their work, but suffer more or less pain in the affected joints. In other cases, more severe, the patient is confined to his bed, and frequently, with those about their avocations, there is more or less deformity of the joints.

Treatment.—The alkalies may be used in small doses; also the salicylate of soda. Iodide of potassium is sometimes very useful, and in malarious districts quinine is to be employed.

The local applications to the joints here are of more importance than in the acute variety. Tincture of aconite, tincture of iodine and chloroform liniment are very useful.

EMERGENCIES.

Hemorrhage.

A rapid loss of blood is one of the most alarming experiences in life. Nothing is more startling than the hemorrhage from a large vessel, in the case of wounds made with a sharp instrument. If the wound is of one of the limbs, the bleeding may be easily controlled until a surgeon can arrive. If the blood is of a bright-red color, and flows in spurts with the pulse, the wounded vessel is an artery, and the blood comes directly from the heart. The artery must be compressed above the wound. The best way to do this, in case of the arm, is to tie a

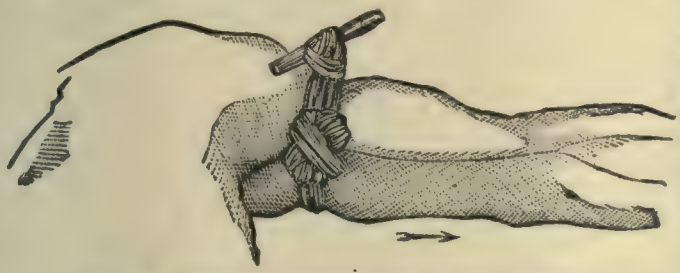


Fig. 39. Bandage Applied on Arm to Stop Bleeding.
The dotted line indicates the course of the artery.

hard knot in a handkerchief; then pass the ends around the arm and tie firmly, having placed the knot over the course of the artery; then insert a small stick, and tighten the bandage by twisting, as shown in Fig. 39. If the wound be of the leg, apply the knotted handkerchief as shown in Fig. 40. The bandage thus made is correctly applied if the bleeding ceases. Otherwise the position of the knot must be changed until the bleeding vessel is successfully compressed.

If the wound is of the trunk, or if the bleeding is not severe, the edges should be brought closely together with adhesive plaster, or with a common needle and thread, and the wound filled with cobwebs, or any substance favoring coagulation of the blood. The patient should be laid down and kept perfectly quiet.

BLEEDING FROM THE NOSE is caused by the rupture of a small vessel of the nasal mucous membrane. Generally, the loss of blood is not great, and soon ceases without treatment. Occasionally the hemorrhage is so profuse as to greatly weaken the patient, and even endanger life. Cold applied to the back of the neck, by means of a piece of ice or iron, is useful. Plugging the nostrils is sometimes of benefit, but in severe cases the blood will then flow backward into the throat. In the most severe cases it is sometimes necessary to plug also the opening of the nose into the throat. This last measure is always successful, but a physician should be called to do the operation, as a person without experience would be apt to fail.

BLEEDING FROM THE LUNGS.—A small amount of blood sometimes takes place into the bronchial tubes, giving rise to "spitting of blood." With this variety there in no immediate danger from loss of blood. Sometimes, however, in cases of consumption, rupture of vessels of considerable size takes place, causing a copious hemorrhage. This is sometimes so severe as to cause death. The patient should be put to bed at once and required to lie quietly upon his back. Twenty drops of laudanum may be given every two hours. Also acetate of lead or tannic acid. A lemon may be sucked, and in some instances has a most excellent effect. A large spoonful of common salt, dissolved and taken into the stomach, is said to be very useful in controlling the hemorrhage. The patient should be kept quiet for several days.

Accidents.

BRUISES, SPRAINS, DISLOCATIONS AND FRACTURES.

A BRUISE should be dressed with a cold water bandage and kept wet. Perfect rest should be given the

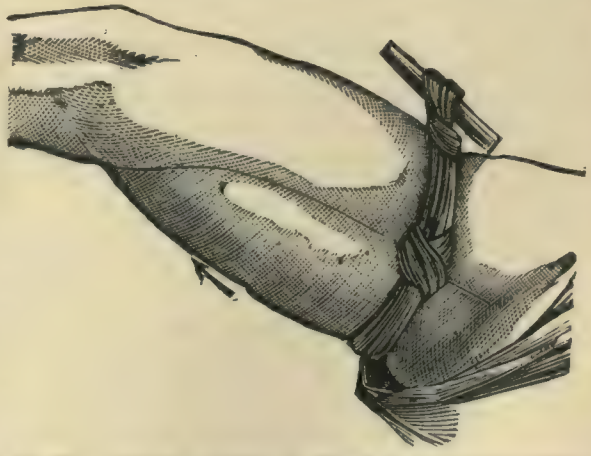


Fig. 40. Bandage Applied on Thigh so as to Stop Bleeding from a Wound Below.
The black line indicates the course of the artery.

part. In case of a bruise about the face or eyes, much of the discoloration may be prevented by at once applying a cold water dressing, or ice, which is better.

A SPRAIN, whether it is of the ankle, or knee, or wrist, should at once be tightly and thoroughly bandaged, and perfect rest should be given the part. A speedy recovery by this means will usually result, when any other course may make a cripple. In bandaging the knee or ankle the bandage must be applied down to the toes, to prevent swelling and stoppage of the circulation.

In case of either FRACTURES or DISLOCATIONS the patient should not be allowed to make an effort, lest he may do himself additional injury. A great many times, by attempting to walk with a broken leg, patients have thrust the end of the fractured bone out through the flesh, thus greatly increasing the danger of a serious result. The injured member should be straightened out, and the patient placed in the most comfortable position to await the coming of the surgeon.

Bites and Stings.

BITE OF A MAD DOG.—The wound is to be immediately sucked either by the patient or another person. No harm can result if there are no abrasions or scratches upon the lips, and it is a very ready and effective way of removing the poison from the wound. Send at once for a medical man to cut or cauterize the wound. If none can be had within a few minutes, any person can cauterize the wound with lunar caustic, or, if none be at hand, the wound may be burned to the bottom by a small red-hot iron. The *bite of a dog not mad* is usually very painful, and is attended with considerable inflammation and swelling. Cloths wrung out of hot water may be applied. Later, a flax-seed poultice, with a half-teaspoonful of laudanum sprinkled upon it, should be applied.

BITE OF A VENOMOUS SERPENT should be treated in the same way as the bite of a mad dog. Brandy or whisky should be given in considerable quantity.

STINGS OF WASPS AND BEES may be treated by bathing the parts with ammonia or hartshorn, diluted with an equal amount of water. In case of the honey-bee sting, if there is much swelling, a poultice of flaxseed should be applied.

Burns, Scalds and Frost-Bites.

In case of BURNS or SCALDS the parts should be protected from the air at once. If a quantity of white oil-paint is at hand, cover the burn at once by applying gently a very thick coat of the paint. In a little while another coat is to be given. If no paint is to be had, apply olive oil and cover with flour. If no sweet oil is to be had, lard will do. If no oil of any sort is to be had, then cover the part with dry flour. The patient should be given a full dose of laudanum or paregoric, or opium or morphine. If the burn has been very extensive, a physician should now be sent for.

In case of FROST-BITE, the circulation must be slowly restored; hence great care should be taken not to bring the patient into a warm room. The frozen part may be rubbed with snow in a cold room, or immersed in very cold water, and kept there for two or three hours, until the circulation has been fully restored.

Suffocation.

Suffocation takes place whenever the air is shut out of the lungs; this may be done by compressing the windpipe, as in *choking* or *hanging;* or filling the lungs with water, as in *drowning;* or with poisonous gases, as charcoal gas from burning charcoal, or by the escape of illuminating gas into the sleeping-room; or by the poisonous gas in mines and old wells.

In case of strangulation, as by *hanging*, the pressure upon the windpipe is to be instantly removed, and the bands about the neck and body loosened. In the case of inhalation of a poisonous gas the patient is to be at once removed into the open air; while the *drowning* person is, of course, to be removed at once from the water, and movements made for emptying the water out of the lungs. The wet clothes should be stripped off and the body wrapped in a warm shawl, blanket or dry coat; no time should be lost in changing the clothing, but efforts at artificial respiration should be made at once, and the clothing can be gotten off while these efforts are in progress. Artificial respiration should be employed in all cases, whether of hanging, drowning, or suffocation by a poisonous gas. The following method of Marshall Hall is as good as any other:

1. Treat the patient instantly on the spot, in the open air, freely exposing the face, neck and chest to the breeze, except in severe weather

2. In order to clear the throat, place the patient gently on the face, with one wrist under the forehead, that all fluid, and the tongue itself, may fall forward, and leave the entrance into the wind-pipe free.

3. To excite respiration, turn the patient slightly on his side, and apply some irritating or stimulating agent to the nostrils, as vetratrine, dilute ammonia, etc.

4. Make the face warm by brisk friction; then dash cold water upon it.

5. If not successful, lose no time; but, to imitate respiration, place the patient on his face, and turn the body gently, but completely, on the side, and a little beyond; then again on the face, and so on, alternately. Repeat these movements deliberately and perseveringly, fifteen times only in a minute. (When the patient lies on the thorax, this cavity is compressed by the weight of the body, and expiration takes place. When he is turned on the side, this pressure is removed, and inspiration occurs.)

6. When the prone position is resumed, make a uniform and efficient pressure along the spine, removing the pressure immediately, before rotation on the side. (The pressure augments the expiration; the rotation commences inspiration.) Continue these measures.

7. Rub the limbs upward, with firm pressure and with energy. (The object being to aid the return of venous blood to the heart.)

8. Substitute for the patient's wet clothing, if possible, such other covering as can be instantly procured, each bystander supplying a coat or cloak, etc. Meantime, and from time to time, to excite inspiration, let the surface of the body be slapped briskly with the hand.

9. Rub the body briskly till it is dry and warm, then dash cold water upon it, and repeat the rubbing.

Avoid the immediate removal of the patient, as it involves a dangerous loss of time; also, the use of bellows, or any forcing instrument; also, the warm bath, and all rough treatment.

Poisoning.

In cases of poisoning something must be done at once, before a physician can have time to reach the patient. The first effort should be to get the poison out of the stomach. This can be done by inducing vomiting. This should be done in every case, no matter what poison has been swallowed.

Endeavor to wash out the stomach in the following manner: a tablespoonful of common dry mustard is to be added to about two quarts of warm water; stir well and give to the patient by the tumblerful until he vomits freely. In some cases, half the mixture will be required before vomiting is induced. If no mustard is at hand, then use the warm water alone.

The patient should be undressed and put to bed. If the skin becomes cold and the breathing rapid, stimulants are required, such as bottles of hot water placed at the feet and in contact with the body, always taking care not to burn the skin.

In the case of known opium or morphine poisoning, in addition to the above the victim should be walked rapidly by a strong person on either side.

Acids (Oxalic, Sulphuric, Nitric).—Give large draughts of cooking soda in water, then wash out the stomach as directed in general rules.

Carbolic Acid kills very rapidly. Pour oil into the victim's mouth freely. Apply friction to the surface. Inject diluted whisky into the bowels. Children have been seriously poisoned by carbolic acid injected into the bowels to destroy pin worms. In such cases empty the bowels completely by warm soap suds injected into the bowels, and stimulate the victim by whisky and water in the stomach.

Aconite.—Wash out the stomach. Rub the entire surface of the body with a coarse towel. Inject a tablespoonful of whisky with an equal quantity of water into the bowels.

Antimony (Hive Syrup).—A draught of sweet oil or milk, followed by washing out the stomach. Give diluted whisky by the mouth and inject it into the bowels.

Arsenic (Fowler's Solution).—Draughts of milk or starch, followed by washing out the stomach. Stimulants injected into the bowels.

Alkalies (Potash, Ammonia).—Pour sweet oil or milk into the mouth freely; afterward wash out the stomach.

Belladonna.—Wash out the stomach. Apply friction to the surface. Stimulate with whisky.

Chloral.—Empty the stomach. Artificial heat to the surface. Stimulants by injection.

Chloroform.—If taken into the stomach, wash it out. If respiration threatens to cease, use artificial respiration and apply heat and friction to the surface. If inhaled, the victim should be placed head down while efforts are being made to maintain respiration artificially. Keep the body warm. All persons should make themselves familiar with methods of inducing artificial respiration, and remember to employ them with steady persistency in cases of drowning.

Mercury (Corrosive Sublimate).—White of eggs, or, if not at hand, give milk freely. Wash out the stomach afterward.

Opium (Morphine).—The greatest difficulty will be experieneed in emptying the stomach, which may be facilitated by tickling the front portions of the throat with a feather. Compel the patient to walk rapidly if possible. If not, use the most vigorous friction to the surface without ceasing. If necessary, severe pain should be produced by sharply pinching the thumb nail until the patient responds. Hot black coffee. Artificial respiration. Children are frequently killed by soothing syrups. These should never be given except by medical advice.

Fainting.

The cause of *Fainting* is lack of blood in the brain; hence, the patient, in case of a faint, should be placed in a position favoring the flow of blood to the brain. The patient should be laid at once flat down upon a bed, a sofa, or the floor, without any pillow under the head; then cold water can be dashed in the face, which will have the desired effect.

Sunstroke.

In case of *Sunstroke*, unfasten and remove all excess of clothing and dash pails of cold water over the head and chest of the patient. As soon as ice can be procured make an ice-cap of towels, and cover the head with ice broken in small pieces. This treatment of cold to the head is to be kept up for many hours, or even for days in some cases. A physician should be called as soon as possible, but treatment should go vigorously forward until his arrival.

POSOLOGICAL TABLE.

MEDICINES, WITH DOSES FOR ADULTS.

For patients over 20 years of age, the full dose; from 14 to 20 years, ⅔ of full dose; 7 to 14 years, ½ dose; 4 to 7 years, ⅓ dose; 3 years, ¼ dose; 2 years, ⅙ dose; 1 year, ⅛ dose.

Medicine.	Dose.
Arsenic, Fowler's Solution of	2 to 10 drops.
Aconite, Extract of	⅛ to ½ grain.
Aconite, Tincture of	1 to 5 drops.
Aloes, Purified	1 to 5 grains.
" Pills of	1 to 4 pills.
" Pills of Asafœtida and	1 to 4 pills.
Asafœtida, Mixture of	½ to 2 tablespoonfuls.
" Tincture of	½ to 2 teaspoonfuls.
" Pills of	1 to 4 pills.
Atropia, Sulphate of	1/100 to 1/60 of a grain.
Belladonna, Extract of	¼ to 1 grain.
" Fluid Extract of	1 to 5 drops.
" Tincture of	5 to 30 drops.
Bismuth, Subnitrate of	10 to 30 grains.
Bromide of Ammonia	5 to 20 grains.
" of Potassium	5 to 20 grains.
" of Sodium	5 to 20 grains.
Buchu, Fluid Extract of	10 to 60 drops.
Calibar Bean, Extract of	½ to 1 grain.
Calomel	⅛ to 10 grains.
Camphor, Spirits of	5 to 15 drops.
Camphor Water	1 to 4 teaspoonfuls.
Capsicum, Tincture of	10 to 20 drops.
Castor Oil	¼ to 2 tablespoonfuls.
Chloral, Hydrate of	5 to 30 grains.
Cinchona, Sulphate of	5 to 30 grains.
Cinchona, Compound Tincture of	1 to 4 teaspoonfuls.
Cod Liver Oil	½ to 1 tablespoonful.
Copper, Sulphate of	⅛ to ½ grain.
Corrosive Sublimate	1/60 to 1/10 grain.
Cream of Tartar	5 to 60 grains.
Croton Oil	1 to 2 drops.
Digitalis, Extract of	½ to 2 grains.
Digitalis, Tincture of	5 to 60 drops.
Dover's Powder	5 to 10 grains.
Epsom Salts	½ to 2 tablespoonfuls.
Ergot, Fluid Extract of	½ to 2 teaspoonfuls.
Gentian, Extract of	1 to 5 grains.
Gilsemium, Fluid Extract of	5 to 10 drops.
Hydrochloric Acid, dilute	1 to 5 drops.
Hyosciamus, Fluid Extract of	5 to 20 drops.
Hyosciamus, Tincture of	½ to 2 teaspoonfuls.
Iodine, Compound Tincture of	2 to 5 drops.
Iodide of Potassium	5 to 30 grains.
Ipicacuanha, Fluid Extract of	2 to 30 drops.
Ipicacuanha, Syrup of	1 to 4 teaspoonfuls.
Ipicacuanha, Troches of Morphine and	1 to 10 troches.
Iron, Reduced	1 to 2 grains.
Iron, Pyrophosphate of	2 to 5 grains.
Iron, Tincture of the Chloride of	5 to 30 drops.
Lactic Acid	15 to 30 drops.
Laudanum	15 to 40 drops.
Lead, Sugar of	½ to 5 grains.
May Apple, Resin of	1/6 to ¼ grain.
May Apple, Extract of	3 to 8 grains.
Muriatic Acid, dilute	5 to 10 drops.
Morphine	⅛ to ⅓ grains.
Magnesia, Sulphate of	½ to 2 tablespoonfuls.
Mustard, Ground	1 to 2 teaspoonfuls.
Nitre, Sweet Spirits of	½ to 1 teaspoonful.
Nitro-Muriatic Acid, dilute	2 to 10 drops.
Nux Vomica, Tincture of	10 to 25 drops.
Opium, Extract of	½ to 2 grains.
Opium, Tincture of	15 to 40 drops.
Opium, Camphorated Tincture of	¼ to 2 tablespoonfuls.
Paregoric	¼ to 2 tablespoonfuls.
Potassium, Bicarbonate of	5 to 20 grains.
Potassium, Bitartrate of	5 to 60 grains.
Potassium, Bromide of	5 to 20 grains.
Potassium, Chlorate of	5 to 20 grains.
Potassium, Iodide of	5 to 30 grains.
Potassium, Liquor of	2 to 20 drops.
Pepsin	5 to 10 grains.
Quassia, Tincture of	5 to 60 drops.
Quinine	2 to 10 grains.
Salicin	5 to 20 grains.
Senna, Confection of	1 to 2 teaspoonfuls.
Senna, Fluid Extract of	1 tablespoonful.
Soda, Bicarbonate of	5 to 30 grains.
Soda, Salicylate of	10 to 30 grains.
Squill, Syrup of	½ to 1 teaspoonful.
Strychnia, Sulphate of	1/60 to 1/30 of a grain.
Turpentine, Spirits or Oil of	5 to 10 drops.
Valerian, Tincture of	½ to 2 teaspoonfuls.
Veratrum Viride, Tincture of	1 to 4 drops.
Zinc, Oxide of	½ to 5 grains.



ARCHITECTURE FOR MODERN TIMES.

With Plans and Estimates.

WHILE the aim of this department is to give a practical exposition of the science of Architecture as modified by modern thought and necessity, and more especially in its relation to the building of country homes, a brief introductory allusion may be made to the general principles of architectural beauty, which, though founded upon ideas evolved and matured by the ancients, are to-day the main sources of inspiration for the builder who seeks to render what he builds beautiful as well as convenient and comfortable. Many as may be the styles of architecture, the science is divided into five great original divisions, known as the Doric, Ionic, Corinthian, Tuscan and Composite orders. Of these, the three first named are of Greek origin; the last two are Roman adaptations of the former, the Composite order being a rich and glowing union of the Ionic and Corinthian, while the Tuscan is merely an elaboration of the Doric. With the political partition of the Roman Empire came a division of its architecture into the Byzantine, which became tinged with orientalism, indicated in its richness of color and decoration, and the Early Christian and Romanesque, both of which are more simple. Among other styles which strongly influence modern building are the Gothic, and the Renaissance, which is a revival of Grecian architecture adapted to modern requirements. Other styles, which are very seldom resorted to, are the Egyptian, marked by sloping walls, great solidity, and ornamentation in hieroglyphics and the lotus-flower; the Assyrian, of fantastic design, with huge flights of stairs and lengthy terraces; the Chinese, characterized by curling eaves and a succession of roofs tapering one above the other; the Indian, exemplified by temples cut from the solid rock, and the Moorish, richest of all in its combination of light colors and elaboration of minute and beautiful details.

PRACTICAL ARCHITECTURE.

A commendable tendency of the times is to combine in all things beauty and utility. A house is the physical exponent of the standing and character, the tastes and aspirations of its owner, and nothing is more worthy of a man's thought and attention than the structure and its surroundings which he calls his home. In building a modern home in the country, it being always understood that harmony of outline and proportion is sought in connection with more indispensable requirements, the follow-

ing excellencies must be constantly aimed at: Convenience of arrangement; facility of construction and repair; protection from heat in summer and cold in winter; means of ventilating and warming; conformity with the surrounding scenery. These are the leading ideas which should guide the builder, and, as the question of convenient arrangement has an external as well as an internal application, the first matter to receive consideration will be

The Choice of a Site.

In making the selection the things to be avoided should receive attention. Among these are a location on the north or west side of a hill, and proximity of sluggish streams, marshes, bogs, swamps, the miasma from which will poison the atmosphere and certainly entail liability to disease upon those breathing it. The steep side of an evenly rising hill offers an objectionable position when other hills of equal height and like conformation surround it, cutting off the necessary amount of sunlight. The principal rooms of the house should be so located as to be well exposed to the sun's rays. The dining-room should get the benefit of the morning sun; the principal chamber and the sitting-room should be located so as to invite the sunshine through both the morning and the afternoon. Either the morning or the afternoon sun should be secured for the other rooms, parlors, etc., while the kitchen, bath-room, storerooms, etc., can be given the locations which are least favored with solar rays.



A RURAL HOME.

An elevated site presents many great advantages. It invites the sunlight to come early and stay late. It places at command a sweeping view of the surrounding country. It insures the presence of pure and salubrious atmosphere, and gives the best facilities for draining. With such a site, protected from the western and northern winds by belts of timber or thatches of higher ground, as near an approach as is possible to absolute comfort and healthfulness, as far as location can govern them, will be secured.

Conformity with the surrounding scenery is an object that should not be overlooked. When possible place the house so that the occupant, no matter which way he will direct his glance, may be greeted by a pleasant landscape, whose natural advantages can be greatly improved by the planting here and there of trees or shrubs. These, too, may be advantageously employed in the ornamentation of the actual site of the building, care being taken that they should not be placed too near the building so as to swell the volume of dampness to an unhealthy extent.

Building a Home.

After the farmer has made up his mind that he will build a home, the next thing to be definitely settled is the kind of a house he intends to erect. Whatever changes in the main plan are to be made are accomplished easily and at no expense before the actual building has been begun. Therefore let the builder thoroughly embody in his plans what he wants in his house, where he wants it and how he wants it, before he even goes so far as to stake out the foundation. In this preliminary work, which will be found to be full of pleasure, an invaluable adviser will be found in the wife who is to preside over the home when it is finished. Her keen intuition and ready inventive faculty will find a quick solution for any of the agreeable puzzles which arise from time to time in planning a house. Convenience of arrangement, which is the creator of home comfort, must be studied at every point when the work of building the home on paper is in progress. These desiderata should in no instance be made subordinate to appearance. With the exercise of a little ingenuity both comfort and beauty may be preserved in combination. In the question of facility of construction and repair many local issues will of course take part. Availability and cost have a good deal to say on this subject. Other things being equal, stone provides the handsomest and most durable building material, as well as the most artistic, its unembellished surface always harmonizing with the scenery which surrounds and the foliage which enfolds it. Next comes brick, which, though lacking the lasting power and beauty of stone, presents points of utility and permanence of great value. Lastly, wood claims attention, and on its behalf are urged its cheapness and dryness, its general healthfulness, its facility of ventilation, the readiness with which it is worked, and its pronounced capability of ready ornamentation. The

only offset to all these advantages is supplied in its perishable nature; but with care this may be greatly modified. No home presents a more cheerful exterior than that of wood painted in the bright and cheerful tints now in vogue. *A propos* of painting, a great mistake is occasionally made by the owners of wooden buildings when they seek to have the surfaces converted into a supposed imitation of stone or brick. At a distance the imposture may succeed, but a closer view dispels the thin illusion, and the cheap effect creates anything but the impression which has been aimed at so awkwardly.

As a general, a very general rule, the publishers of such books as have hitherto attempted to handle the question of modern architecture in a practical way have been content to supply their readers with some good general advice on the subject of the selection of the location and material of a house, after which they bring the subject to a sudden and unsatisfactory ending, by advising the intending builder, when he has got thus far, to employ an architect and entrust to his judgment and discretion, paid for by a large percentage on the actual cost of the house, the completion of the structure. Such is not the intention of this book. It has given the house-builder advice on the subjects mentioned, and, having led him up to the point where planning ends and construction begins, it will not there leave him. In the plans and specifications to be found further on are provided clear and comprehensive data, by following which any farmer, with the assistance of one or more competent carpenters, will be able to construct the house which he has planned.

Before these are brought under consideration, an estimate, showing just

How the Money is Applied

in the building of a $1,500 house, will provide an idea of the cost of the various materials used in its construction, and will form a reliable basis of calculation for houses of less or greater cost:

Excavation, 45 yards at 15 cents,	$ 6.75
Brick-work, 13,600 at $8.00,	108.80
Joists,	63.00
Flooring, 2,000 feet,	80.00
Rafters,	57.00
Studding and framing,	108.00
Sheathing, 4,500 feet,	103.50
Weather-boarding, 2,500 feet,	125.00
Shingles and shingling, 1,900 at $5.00	95.00
Gutters and cornices, 196 feet feet at 30 cents,	58.80
Doors, with hardware, 13 at $8.00	104.00
Windows, complete, 14 at $7.50	105.00
Bases, 460 feet at 6 cents,	27.60
Porches and stairs,	58.00
Painting and glazing,	139.00
Galvanized iron and tin work,	63.00
Lathing and plastering, 868 yards at 20 cents,	173.60
Grates and mantels,	30.00
Sundries,	33.00
Total, including labor, etc.,	$1,539.05

Water.

A full supply of water is of essential importance, and the nearer it can be brought to the house the better; and best of all if it can be introduced right into the house. In hilly localities a spring may be found whose elevation will enable its waters to flow through the whole house. Failing such a convenient ally of domestic comfort, a hydraulic ram may be employed to force the water through the system of pipes with which the house is supplied. The ventilation of water is essential, and for this purpose cisterns should be left exposed and uncovered. Without good drinking-water good health will be unattainable. Several simple but reliable tests of its quality are given, among which the following are worthy of attention: Good drinking water cooks vegetables well, especially the dry kind, such as peas and beans. To the eye it should be limpid; to the nose, scentless; to the taste, insipid. After drinking in moderation no sensation of weight should be felt in the stomach. If the water fulfils all these conditions it may be relied upon as excellent. Avoid the use of rain-water caught on the roof and saved in cisterns, as, being impregnated with dust, soot, and other impurities, it is necessarily impure. By filtration it can be rendered drinkable, and it is a good plan to build your cistern in two compartments, separated one from the other by a water-tight wall of brick, with a space left in the bottom for a box filled with alternate layers of gravel, sand and powdered charcoal. The water will be filtered by passing through this box, and be made safe and pleasant for use.

When it is decided to have a

Cellar

care should be taken to so construct it that the dangers arising from foul air, through bad ventilation and lack of the purifying sunlight, are reduced to a minimum. A cellar which is intended for the storage of vegetables through the winter should not be connected with, certainly never directly beneath the dwelling. In any case it should be kept scrupulously clean, as the foul gases given off by decomposing vegetables are highly detrimental to health.

A few dollars expended on an

Ice-House

will be found to be one of the best investments the farmer ever made. Up to within comparatively few years ice was invariably stored underground, but recently it has been found that the crystal coldness can be as well preserved in a house built above ground, provided only that it is constructed on a plan which secures non-conduction of heat into the interior. A very good plan for an efficacious ice-house, to cost only $25, can be given: It should be built of boards with double walls filled with saw-dust, or chaff, or fine straw. A large ventilating window is placed at each end at the top; these windows should always be open. Care should be taken that all the saw-dust is pressed solid, so that no cavities are left. An ice-house with one apartment, 8 by 10 feet, and 6 feet high, will keep ice enough for a moderate family. To build such a house will be required 216 square feet of inch-thick weather-boarding, $3.60; 132 feet of rafters, 10 feet long, 4 by 2 inches, $1.80; 103 feet of slats, 7 feet long, $2.10; two doors, $2.00; shingles, 1,150, $2.90. Total, $25. The employment of materials which are non-conductors of heat and the securing of proper drainage are the great points to be looked after in building an ice-house.

BEAUTIFUL HOMES.

THE LATEST DESIGNS FOR COTTAGES AND DWELLINGS.

THE principal motive in this work is to give moderate-priced dwellings, ranging from $1,000 to $6,000, one or two, however, touching figures considerably higher. We realize that the architecture of the future will be more quiet and less florid than it has been for several years past; we have, therefore, endeavored so to treat the designs that they will always look well. Careful study has also been given to the planning, the arrangement being comfortable and convenient. We consider it better taste to avoid flimsy and trashy details in the construction of our homes; the study should be more for repose and harmony and less for ostentatious display. The picturesque roof is the principal feature in modern cottage architecture, and is coming to be treated more simply than formerly. Many people raise the objection to the picturesque roof, that it will get out of repair easily. But there is no reason why a steep roof need get out of repair sooner than a flat one, providing it is properly constructed.

The question naturally arises, in looking over the designs, "How much would such a house cost?" This question we anticipate, and in some cases estimates are given. But it is possible to do so in a general way only, as the expense of a building depends entirely upon the specifications and details, and on the cost of materials and labor in the location where the building is erected.

It does not pay to attempt to build too cheaply, although economy should be carefully considered. Take, for instance, plate A. This cottage might, by leaving out a good foundation wall, the cellar, cistern, etc., be built for $600 or $800. This would necessitate setting the house upon cedar posts, boarding up the under-pinning, and otherwise "skinning" it, thus making a trap for infectious diseases, not fit for a beast to inhabit, instead of a comfortable home for a family to dwell in. On the other hand, if the same cottage is built with a good foundation wall, the cellar well drained, the frame warmly sheathed and otherwise specified to be in good condition, comfortable and healthful, it will cost from $1,200 to $1,400.

The designs and plans immediately following, numbered A to L, are by Mr. J. H. Kirby, of Syracuse, N. Y., and are selected from a series of twenty-four designs published by him in 1885, and constituting a "Portfolio of Cottages" which does credit even to an architect of Mr. Kirby's reputation. These designs are in accordance with the best modern taste, and represent that union of comfort and artistic beauty which is now demanded in the better class of home architecture.

Design **A** shows a small frame cottage suitable for a family of modest means, but possessed of culture and refinement. By reference to the floor plans it will be seen that the arrangement of rooms consists of a living-room, dining-room, a small bed-room and a kitchen on the first floor. The stairs connect the living-room with the second story, and are what are known as box stairs. The cellar is reached by stairs immediately under the main stairs. This general arrangement is usually quite economical. The house is approached through a commodious porch, which sweeps down from the main roof, and seems to invite you to come under its shelter. The balcony at the left is entered through a window extending to the floor of the parlor. The kitchen is reached through a side porch. The second floor contains three chambers, with closets from each. This cottage gave excellent satisfaction when built.

Design **B.**—This cottage seems to suggest to us a home—a home where the little child basks in the sunshine of a mother's love, and where the broad, sheltering roof seems a guarantee of comfort within. This cottage is also arranged so that the cost may be kept at the lowest limit. On entering the hall the stairs mount to the second story. From the hall we enter the parlor, or living-room, which contains in one corner a cheerful fireplace. A kitchen and bed-room take up the remaining space allotted to the first floor. The cellar is reached by a stairway under the hall stairs. The second floor has a small hall and three chambers with accompanying closets. The entire exterior surface is covered with sheathing or matched boards, to make it warm in winter and cool in summer. Upon this sheathing in the first story are placed feather-edge clapboards showing about three inches to the weather. The upper part or second story is shingled. The general effect of this cottage when painted with warm, harmonious colors is very pleasing.

Design **C.**—This design has an individuality about it which at once recommends it. While it is comparatively ornate, it is free from any of the flimsy detail which many associate with the so-called Queen Anne style. The broad veranda, extending across the entire front of the house, leads us into the vestibule or small hall, out of which ascend the stairs to the second floor. The sides of the stairs are neatly wainscoted, and have a rail attached to same. The dining-room and living-room are connected by an archway. At the left of the dining-room is a small bed-room, which the architect has not placed there to please himself, but because most people building a country house seem to demand something of the kind. "So nice in case of sickness," they say.

It usually turns out, however, that they seldom use this little room for a bed-room, but turn it into a sewing-room, or something of that sort.

Design **D.**—This design is somewhat more extensive than any of the foregoing. The house itself is even more pleasing than the perspective drawing of it. In this building we get the soft, harmonious combination of colors, which, taken in connection with the general outlines, makes an attractive appearance. In this example, as well as in some of the others, the porch, or veranda, is a special feature. The hall staircase has an ample landing, which is always desirable, and it will be noticed that the principal rooms and hall can be easily thrown together. The living-room contains a fireplace, and between the kitchen and dining-room there are two doors, each double-hung, to swing either way. This feature prevents steam and the smells of cooking from passing to the dining-room. A bed-room is arranged on the first floor. The kitchen is connected with second story by a back stairway. In the second story we get five chambers, with bath-room, having bath-tub, hand-basin and water-closet. The balcony to the right, on second floor, is reached through the chamber window. The staircase window has cathedral glass laid in lead mullions.

Design **E.**—The exterior of this design is perhaps more remarkable for oddity than anything else. The lower part is clapboarded, and the upper part is shingled. The interior, though small, has the benefit of quite a spacious hallway, with a nice landing staircase. A corner fireplace is also a feature of the interior.

Design **F.**—This design embodies the usual arrangement of rooms, the hall having a landing staircase. The hall, parlor and living-rooms are connected by means of sliding doors. The exterior is plentifully supplied with verandas, balconies, etc. The rooms are nearly all of very fair size, and are all conveniently located.

Design **G** was arranged for a summer cottage, and was intended to accommodate two or three families. The living-room is made large enough to be used in common, out of which the open staircase connects with the upper floor. Back of the living-room is a kitchen. The house is well supplied with bed-rooms, and has a wide veranda extending all around it. On either side above the veranda are two large balconies. The interior is designed to be left unfinished.

Design **H.**—This cottage is attractive on the exterior, and desirable in the interior. The large reception hall forms a prominent feature of the inner arrangement. Its connection with all the other principal rooms is such that by means of sliding doors all of the rooms can easily be thrown together. This cottage would cost about $10,000, much depending, however, upon the manner and style of finish.

Design **I.**—As a frame dwelling design I has given most excellent satisfaction. A broad veranda spans the entire front, from which we enter the large reception hall. This hall has a fireplace, and is connected by archways with the landing staircase, hall and parlor. The staircase is a beautiful feature in this house. A very desirable arrangement is the connection of kitchen with front door by means of a second hall. The second floor contains chambers of good size, with spacious closets, and good bath-room and water-closet.

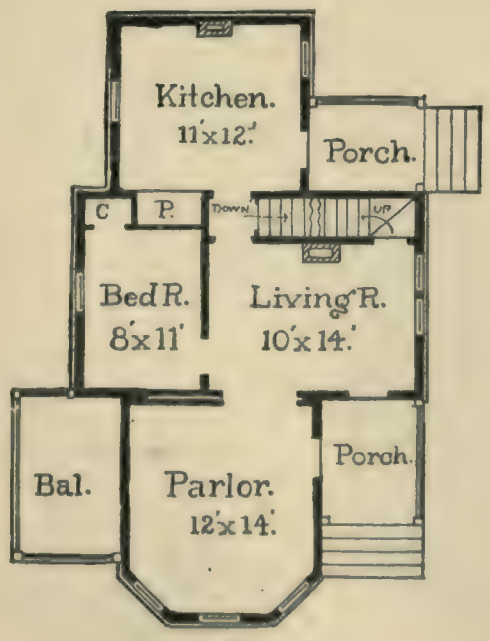
Design **K** is a brick dwelling, and adjoins design C. It will be seen, by reference to floor plans, that the hall enters the center of the house, and communicates with a cross or transept hall, which is lighted by means of an elegant cathedral glass staircase window. A back hall with an open staircase is a good feature. The rooms are so arranged that all are pleasant and commodious.

Design **L** gives us a brick building of semi-detached dwellings. This house is three full stories high, besides the attic and cellar. The reception hall forms a desirable feature, and the staircase is reversed from the usual order. The rear part of the house has no stairs, but is furnished with an elevator, extending from cellar to attic. On the second floor is a large bath-room, which takes the place of one of the rooms marked as bed-room. The first floor is finished in cherry, the second in oak, and the third in pine.

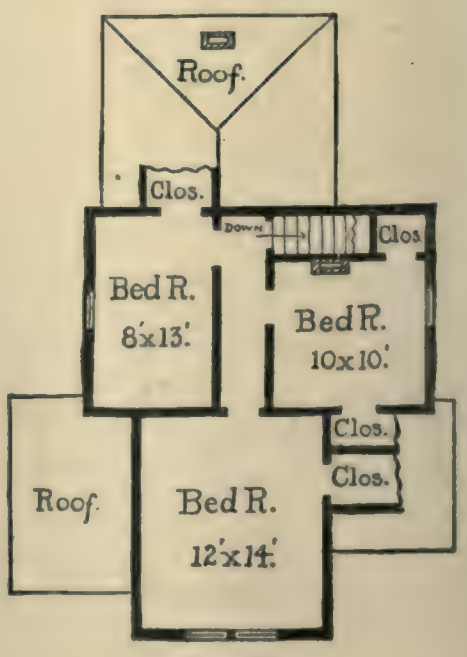




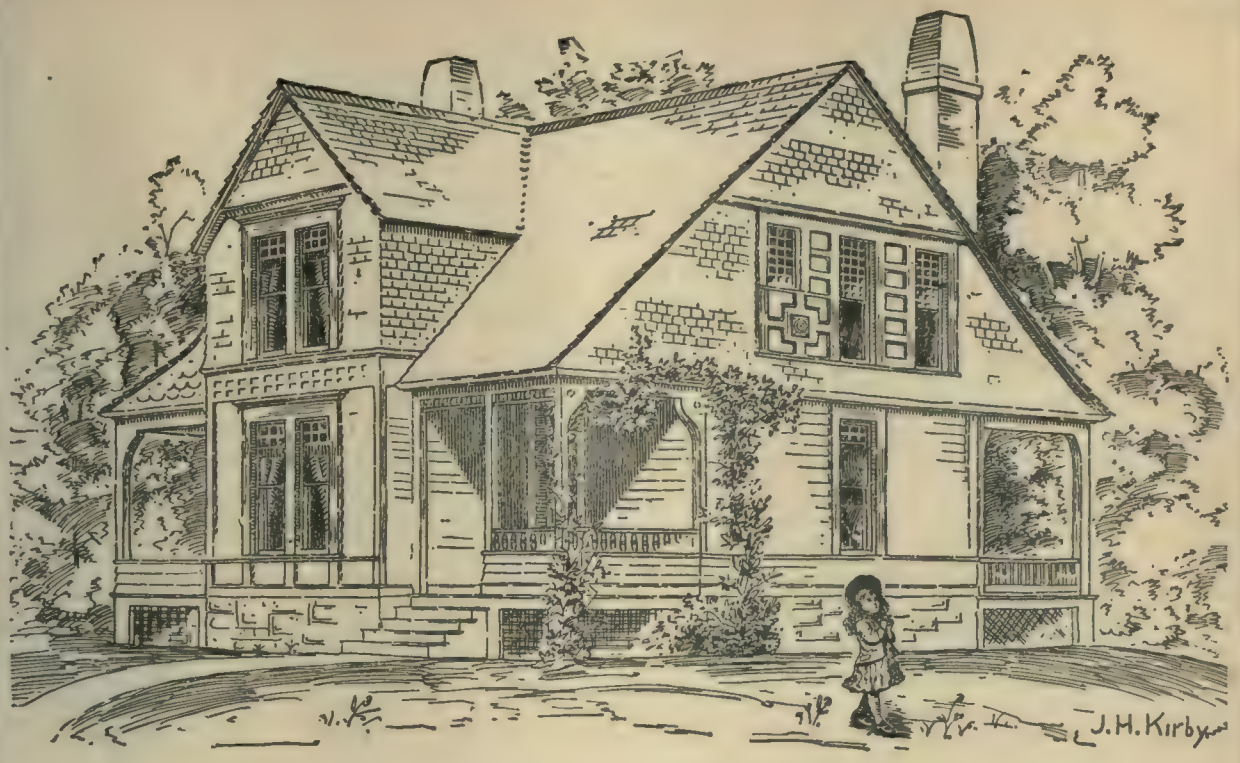
Design A. A SMALL COTTAGE. To cost, complete, about $1,400.



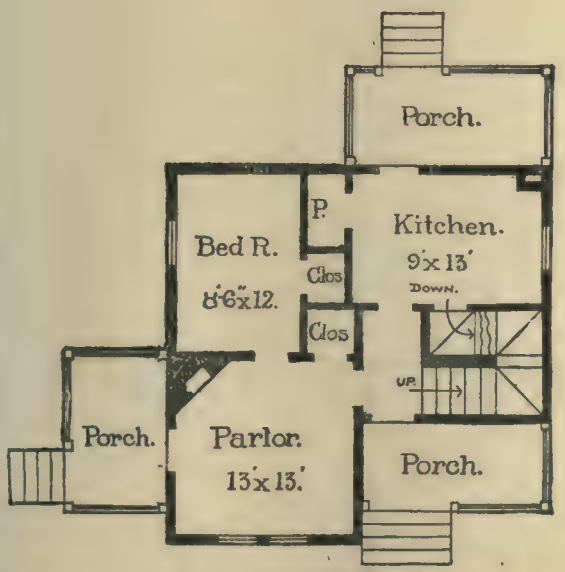
PRINCIPAL FLOOR.



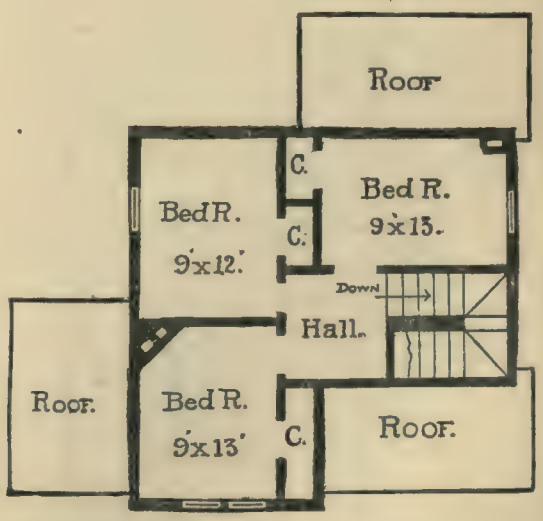
SECOND FLOOR.



Design B. SMALL COTTAGE. To cost, complete, about $1,500.



PRINCIPAL FLOOR PLAN.



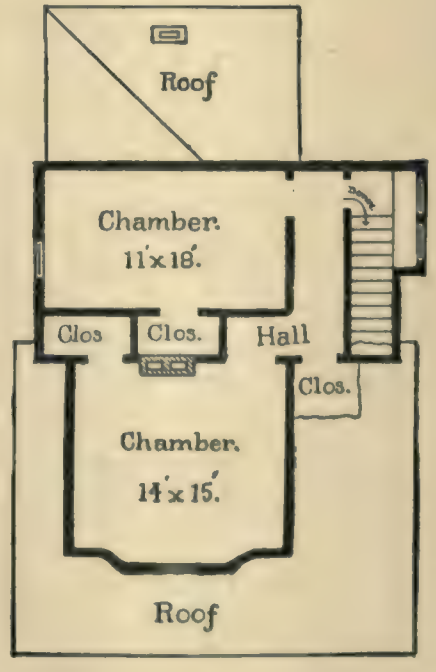
SECOND FLOOR PLAN.



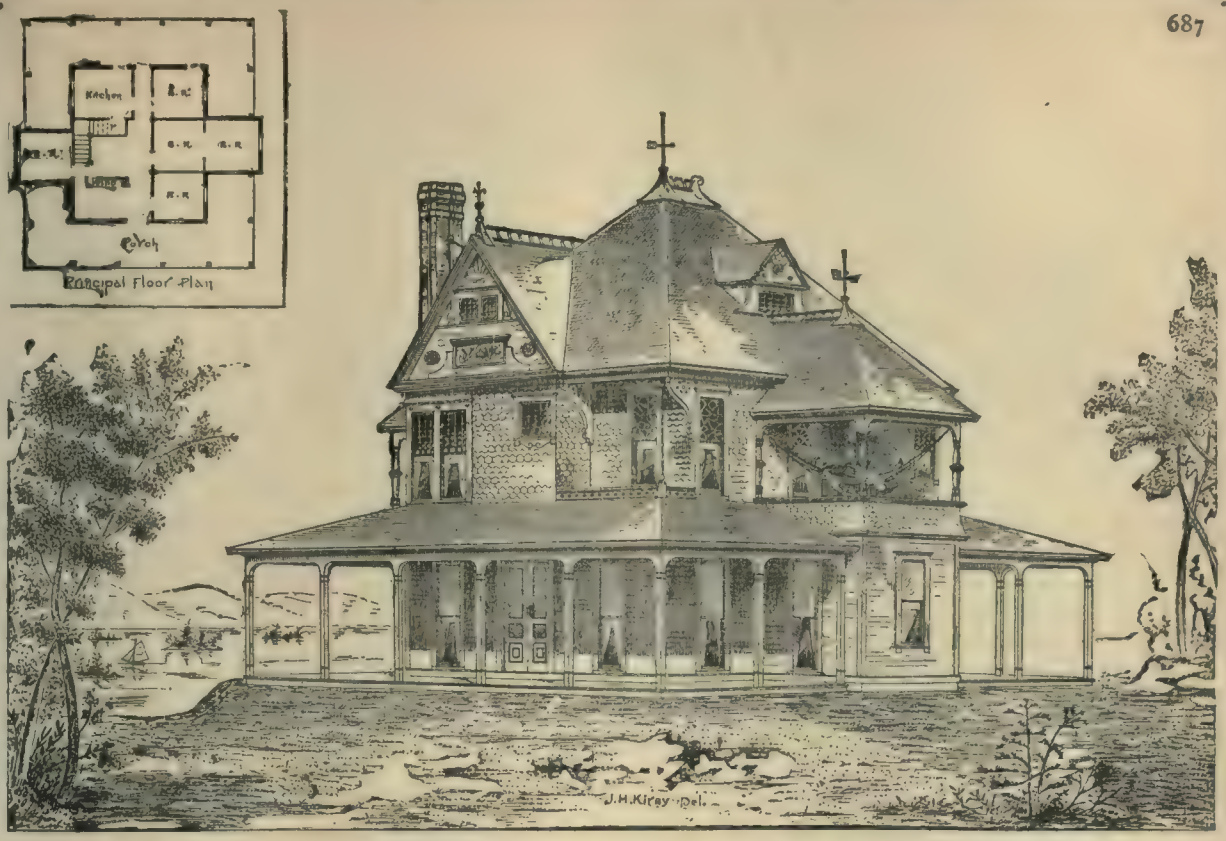
Design C. **A SMALL FRAME COTTAGE.** To cost, complete, about $2,000.



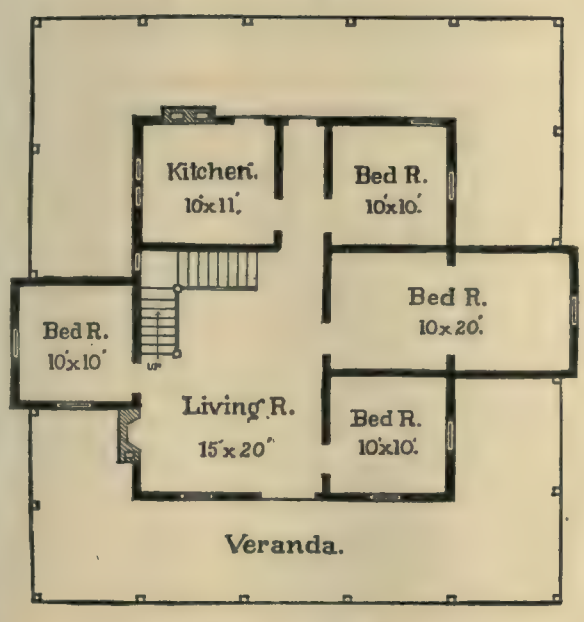
PRINCIPAL FLOOR PLAN.



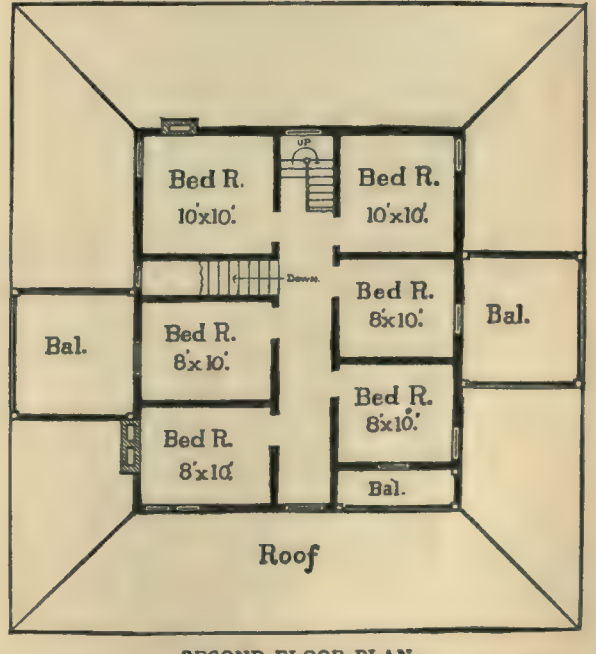
SECOND FLOOR PLAN.



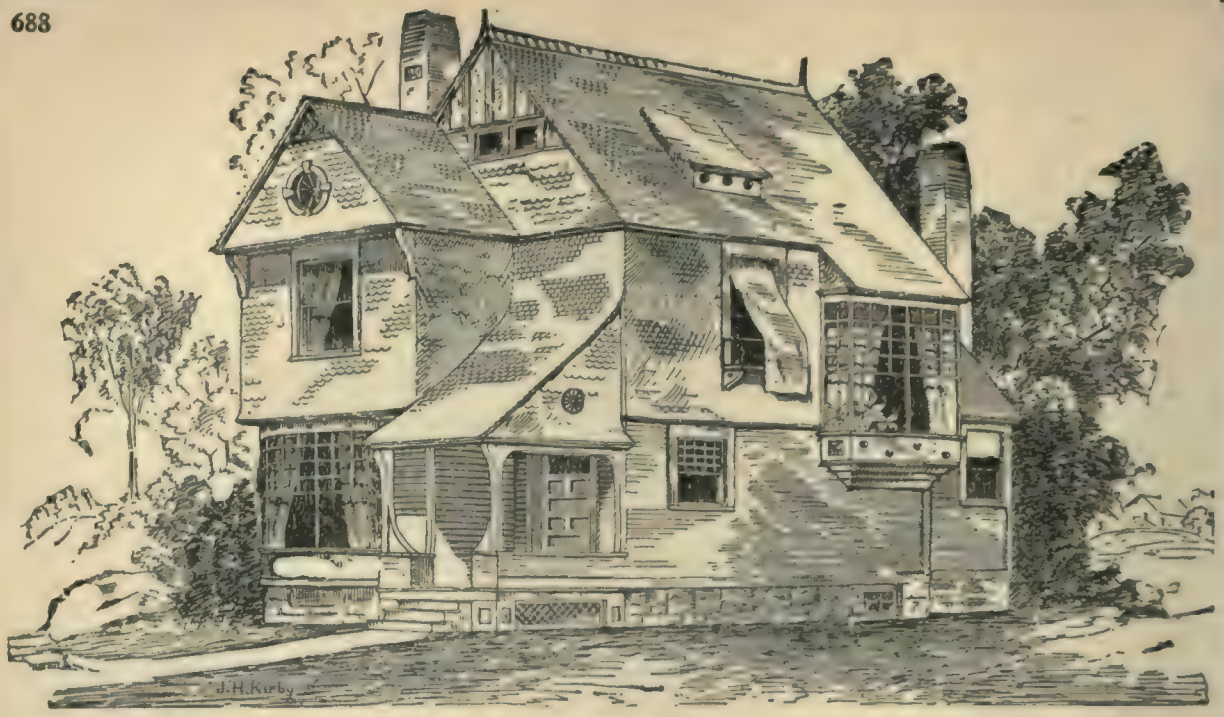
Design D. A SUMMER COTTAGE. To cost about $2,000.



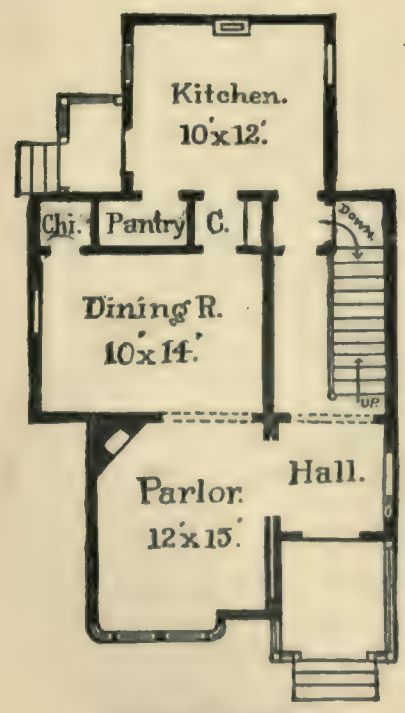
PRINCIPAL FLOOR PLAN.



SECOND FLOOR PLAN.



Design E. A SMALL FRAME COTTAGE. To cost, complete, about $2,500.



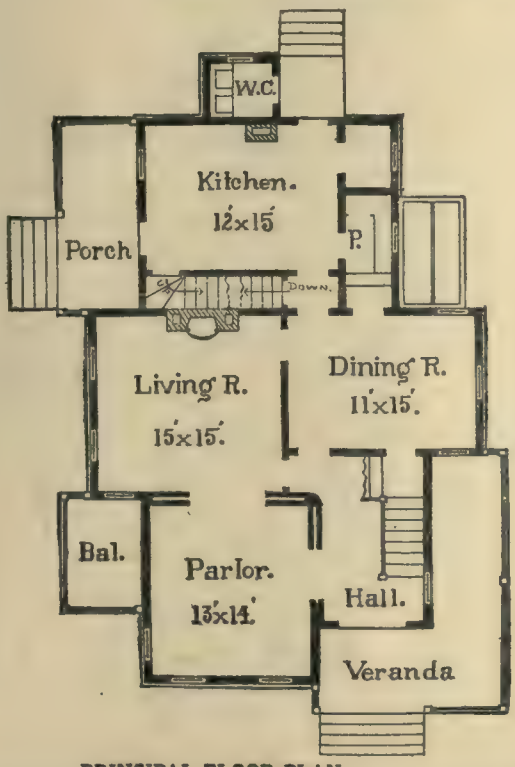
PRINCIPAL FLOOR PLAN.



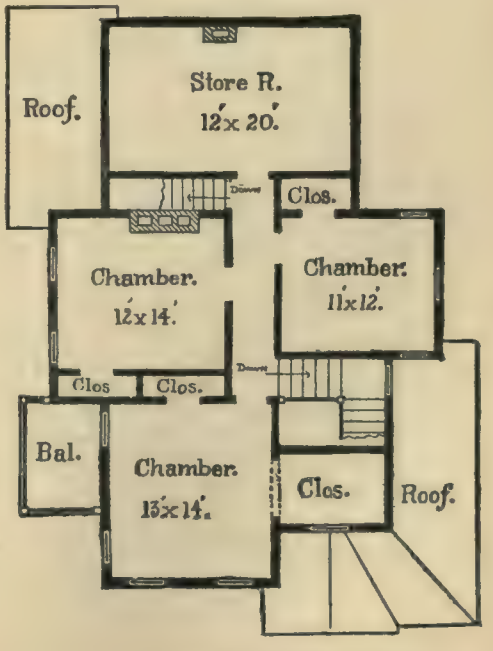
SECOND FLOOR PLAN.



Design F. **A FRAME COTTAGE.** To cost, complete, about $3,500.



PRINCIPAL FLOOR PLAN.

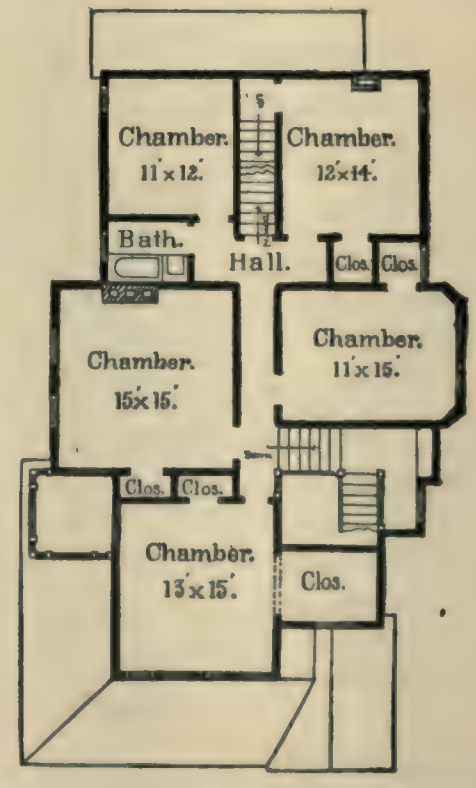


SECOND FLOOR PLAN.



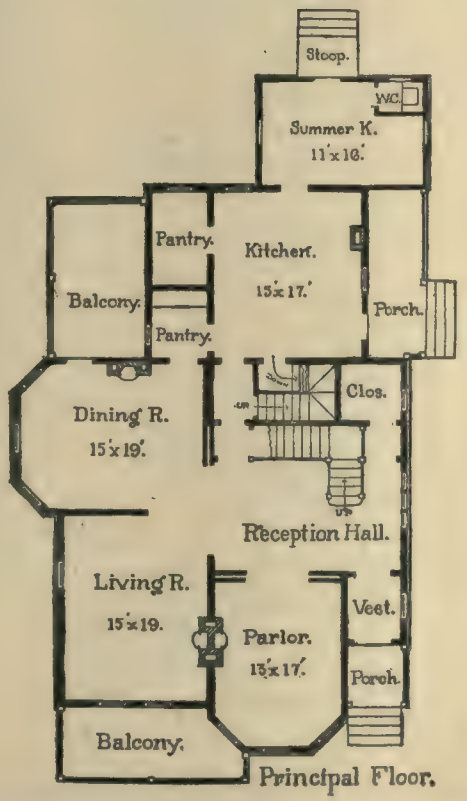
Design G. FRAME COTTAGE. Cost, complete, about $4,500.

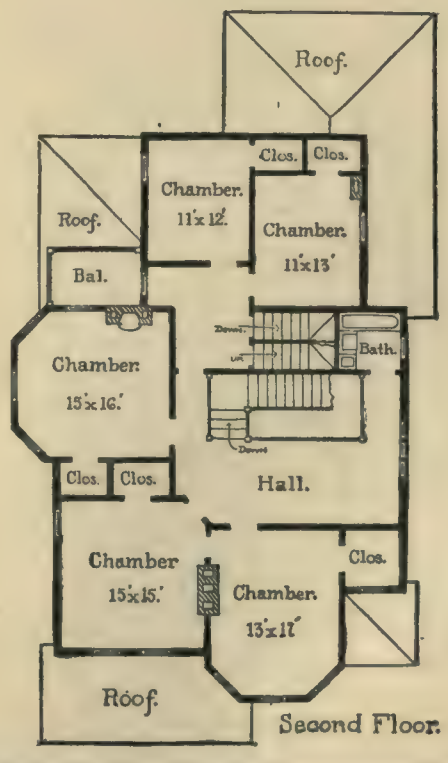






Design H. A FRAME DWELLING.



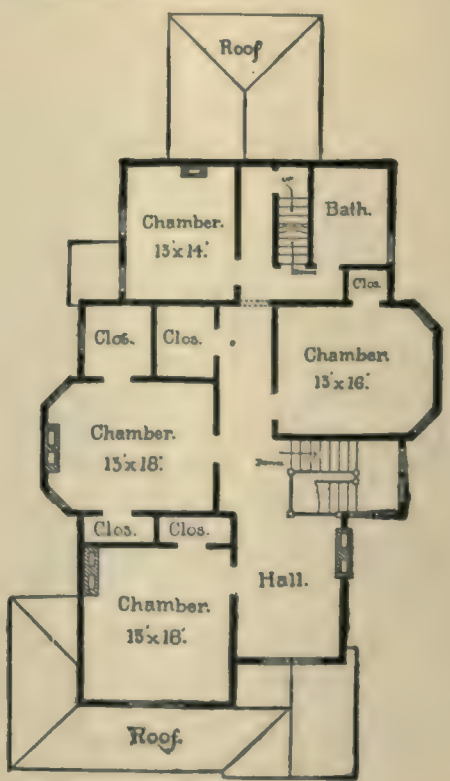




Design I. A FRAME DWELLING. To cost about $6,000.



PRINCIPAL FLOOR PLAN.



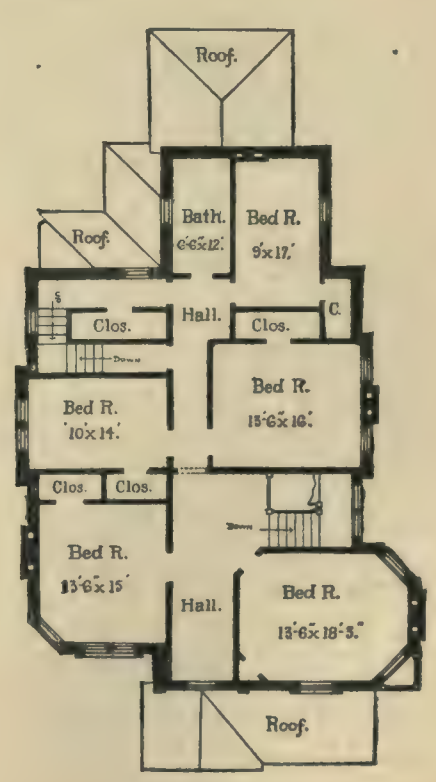
SECOND FLOOR PLAN.



Design K. A BRICK DWELLING.



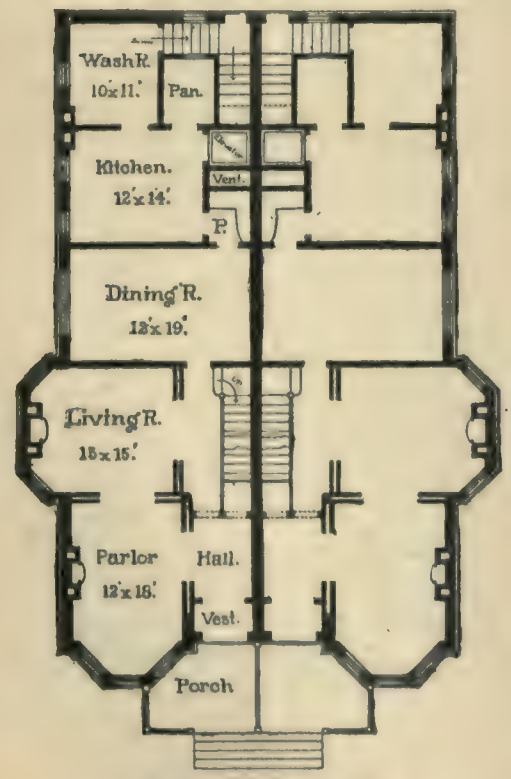
PRINCIPAL FLOOR PLAN.



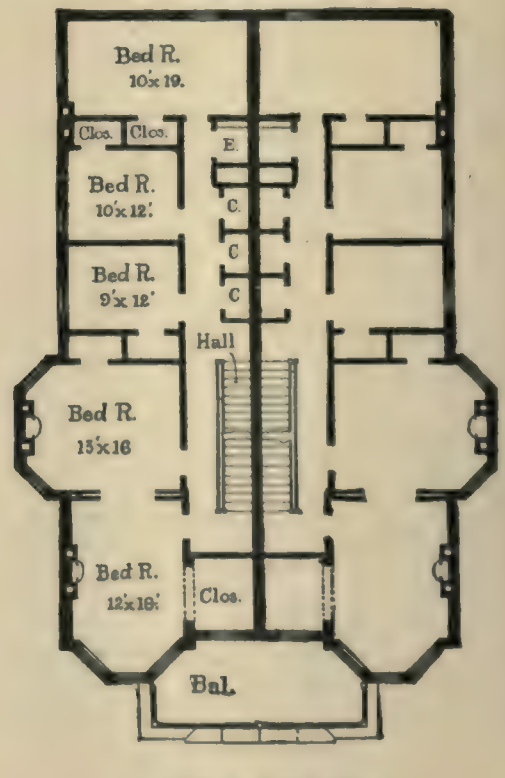
SECOND FLOOR PLAN.



Design L. SEMI-DETACHED BRICK DWELLINGS.



PRINCIPAL FLOOR PLAN.



SECOND FLOOR PLAN.

A $3,000 PRIZE COTTAGE.



A $3,000 PRIZE COTTAGE.—ELEVATION.

The *American Architect*, in 1883, offered a prize for the best original plan of a cottage approximating in cost $3,000. A large number of architects entered the competition, but the jury decided that the accompanying designs, by W. E. Chamberlain, of Cambridgeport, Mass., were incontestably worthy of the first place. While there is nothing that can be called eccentric in the architecture, it is a fresh and unexpected conception. There is a certain distinction which removes the design from the ordinary type, suggesting that the occupant of this cottage has more social prestige than his neighbors.

The plan provides a piazza which is partially roofed for summer, while a vestibule to the hall answers the requirements of a winter dwelling. The parlor and dining-room communicate with each other and with the hall. The kitchen has an ample porch, which would, perhaps, better have been utilized for a shed or wash-room. There is a cellar under the whole house. A furnace is depended upon to heat the various rooms, except the parlor and dining-room, which have open fireplaces. By changing the position of the back stairs in the second-floor plan to the left side of the kitchen, some valuable space might be gained. The main stairs continue up in a tower to the attic, where another room is obtained.

The house is supposed to be built in Allston, Mass., near Boston. Labor is as cheap there as anywhere. The Boston market is at hand, railroad accommodation easy, and stonework cheap.

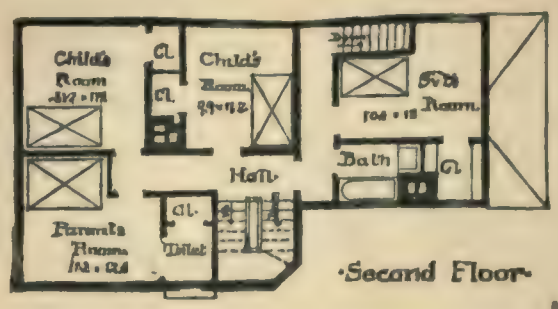
The cellar walls are of 18-inch rough stone up to grade, and then 18-inch brick wall up to sill.

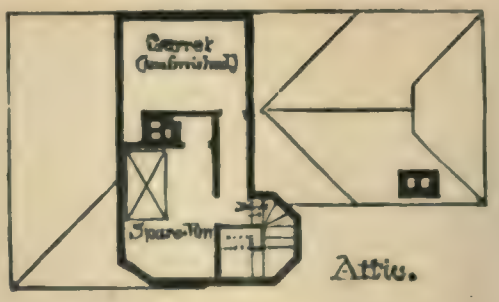
Walls of first story covered with pine "siding," broad horizontal sheathing 10 inches wide.

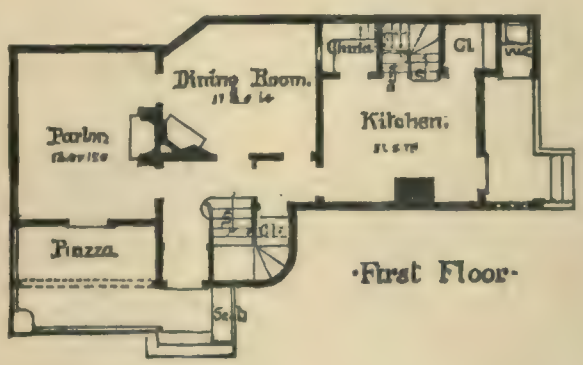
Above second-story floor-beams shingles everywhere, left untouched by paint or stain, to become gray with time.

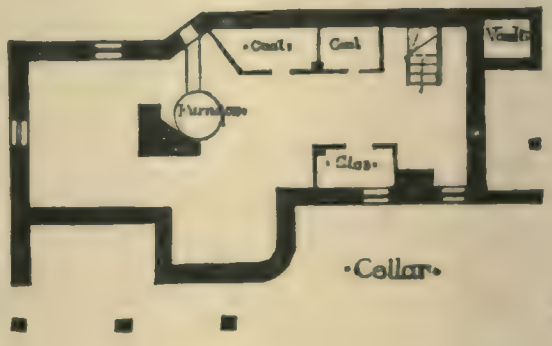
Rough boarding and lower floors of hemlock. Frame of spruce. Plaster, two-coat work. No wainscoting or hard-wood finish. Mill windows and doors.

Sizes: Sills, 4 inches by 6 inches; plates, 4 inches by 6 inches; wall-studs, 2 inches by 4 inches, 16 inches on centres; partition-studs, 2 inches by 3 inches, 16 inches on centres; first-floor beams, 2 inches by 9 inches; second-floor beams, 2 inches by 10 inches (the reason for this is that the second story projects in two places, and has many unsupported partitions to carry); third-floor beams, 2 inches by 8 inches; rafters, 2 inches by 8 inches.









Estimate of Cost.

Except for stone and brick work, the prices quoted for material are *cost* prices, not counting labor or builder's profit, which will be found added at the end. On the lower floor, without including piazzas, there are 817 sq. ft. At $3.50 per sq. ft., the house would cost $2,859.50. This, with piazza-work and the architect's commission, would bring the figure very near $3,055.55, as computed.

EXCAVATION, 5,500 cu. ft. = 204 cu. yds., @ 22¢		$ 44.88
CELLAR WALL (stone) 40 perch, @ $3.50 (laid)		140.00
BRICK FOUNDATION (8 in. thick) with vault, piazza piers, and 2 cellar piers, 158 cu. ft. (24 bricks to a foot); 3,792 bricks, $20 per M. (laid)		75.84
CHIMNEYS, 9,380 bricks, @ $20 (laid)		187.60
FRAME.	SQ. FT.	
Sills, plates, outer walls and inner partitions	2,790	
First floor	1,288	
Second floor	1,480	
Third floor	300	
Second-floor ceiling-joists	648	
Attic ceiling-joists	220	
Roof	1,166	
Total, @ $16	7,892	126.27
ROUGH OUTSIDE BOARDING.	SQ. FT.	
First floor	1,311	
Second floor	1,197	
Third floor	384	
Roof	1,405	
	4,297	
OUTS, WINDOWS.		
First floor, 14		
Second " 12		
Third " 4		
30 @ 22 sq. ft. =	660	
Total, @ $13	3,037	47.28

ROUGH LOWER FLOORS.	SQ. FT.	
First floor	608	
Second floor	700	
Attic	250	
Total, @ $13	1,558	20.25
OUTER COVERING.	SQ. FT.	
First floor, siding @ $30	964	28.92
Second floor, shingles	810	
Third and gables, shingles	424	
Roof	1,405	
Total	2,645	
120 ft. to 1,000 shingles, 22 M., @ $3.75		82.50
WINDOWS, 24 large, including sash, glazing, weights, line, sash-fast, frame architraves and blinds, @ $5.50		132.00
7 small ones, @ $3.25		22.75
DOORS, 28, including hardware, thresholds and architraves, @ $6.50		182.00
STAIRS, all told		140.00
NAILS		35.00
UPPER FLOORS, 1,611 ft., @ $30		48.33
None in garret.		
PLASTER (including lathing).		
WALLS.	SQ. FT.	
First floor	2,473	
Second floor	3,352	
Third floor	712	
Total	6,537	

OUTS.	SQ. FT.	
Lower floor, 3 outer doors	85	
" " 11 inside doors	484	
" " 13 windows	195	
Second " 10 doors	440	
" " 12 windows	180	
Third " 3 doors	132	
" " 3 windows	45	
Total	1,561	
6,537 − 1,561 = 4,976 sq. ft. = 553 sq. yds., @ 18¢		$ 99.54
CEILINGS		30.25
PLUMBING (bath-room and sink only)		150.00
GUTTERS, 75 ft., @ 12¢		9.00
CONDUCTORS, 60 ft., @ 10¢		6.00
PLASTER BAND on exterior (architect to do the "scratch-work")		8.00
FURNACE		150.00
PAINTING (on outside, the lower story and all mouldings will be painted; shingles left as put on)		125.00
LABOR		700.00
TWO FIREPLACES (owner already has tiles)		50.00
Total		$2,641.14
BUILDER'S PROFIT, 10 %		264.14
ARCHITECT'S COMMISSION, 5 %		150.00
OTHER EXPENSES		150.00
Total		$3,055.55

A $2,500 HOUSE.

This structure is in the popular, and presents a neat and attractive appearance. The conventional main hall and stairway are dispensed with, and instead there is provided a vestibule entrance outside the house, from a part of the veranda. This makes the stairs less conspicuous, with approaches at the foot from two directions, in that way serving well for general use from the main house and as a private stairway from the rear extension.



FRONT ELEVATION.

The exterior presents an angular and picturesque appearance. Protection from storms is afforded the windows and entrances by the extensive veranda and other projections. Desirable shade is also furnished by the same means. The roofs are of dark slate, and a cresting of ornamental iron along the main ridges, properly connected with ground rods, serves as a protection against lightning. The window openings, having a single light of plain glass in the lower sash, contain in the upper one several smaller tinted lights, which, in a variety of pleasing colors, produce a most cheerful effect.

In the first story the height of ceilings is ten feet. There are four good-sized rooms, each with outlooks at their sides and ends. The main entrance is from the front veranda, through a good-sized vestibule, which is lighted at the side by a cluster window of tinted glass, and has side and end doors opening to the parlor and sitting-room. The parlor has four windows, facing three directions, each protected from storms, and agreeably shaded by the veranda. There is a large open fire-place, and doors communicating with the sitting and dining-rooms. The sitting and dining-rooms adjoin each other through sliding doors, which admit of their being used together, as occasion may require. The kitchen is convenient, well-lighted, has a large fire-place, with range, and adjoins a pantry. The rear entrance, or porch, is also reached through a door from the sitting-room. The stairs to the cellar and to the second story are placed between the dining-room and kitchen, and may be reached from each direct.

In the second story the height of ceiling is nine feet. This story has a central hall, three chambers, three closets and a trunk-room. The stairs to the attic are placed above those of the first story.

The height of ceiling in the attic is three feet at the plates or sides, and follows the rafters to the full height of seven feet. A hall and three chambers may be finished on this floor, with the doors and windows placed in the centre of the ends of each.

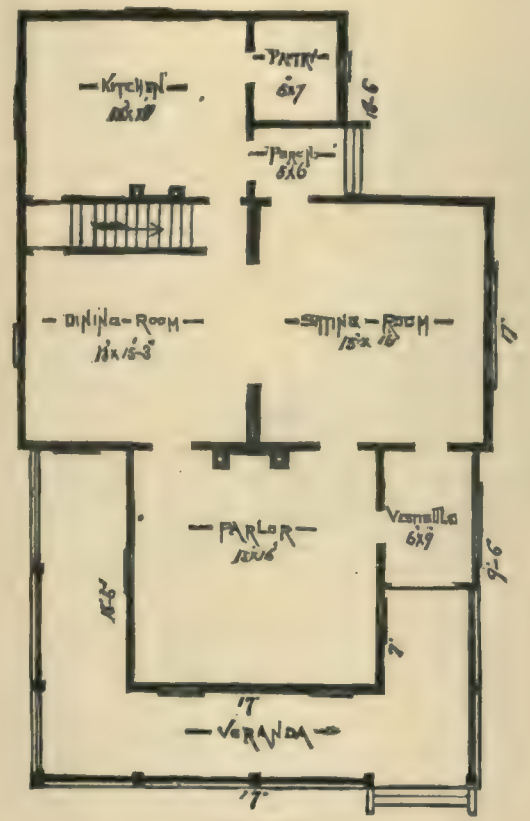


SIDE ELEVATION.

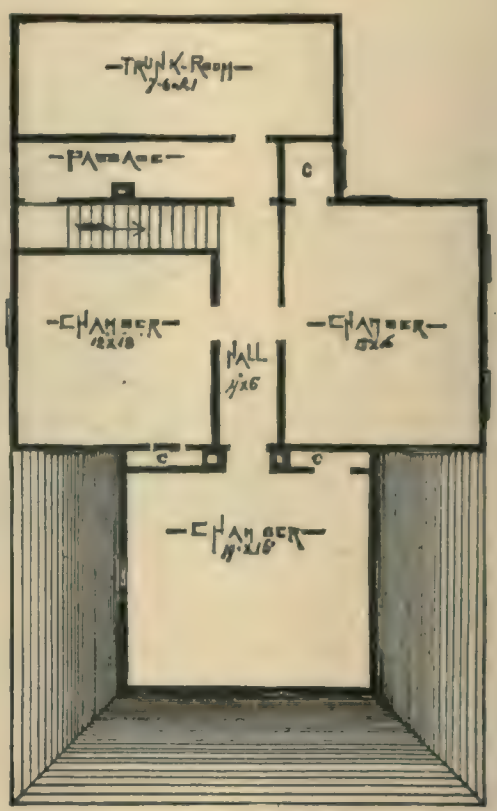
The cellar equals the first story in area. It has an outside entrance, five windows, and stairs leading to the first story. Height of ceiling, 6½ feet.

The foundations and chimneys of this house are of hard brick, laid in good mortar. The frame is of sawed spruce, with siding, for the body, of clapboards laid on thicknessed sheathing and building felt. The gables and frieze courses are of red-wood shingles, also on sheathing. The main roof is of dark slate, laid on sheathing and tarred felt. The veranda roofs are also slate, laid on

inverted pine flooring. The flooring outside is of 1¼ by 4½-inch T and G pine; inside, of 1¼ by 7-inch T and G spruce. The windows have plank frames, with 1¾-inch sash, glazed with second quality French glass. The doors are of seasoned pine, panelled and molded. The inside finish is clear pine, reeded, with blocks. The inside walls and ceilings are hard-finished on two coats of brown mortar, and the principal rooms of the first story have neat stucco cornices. The painting is two-coat work, of selected colors. The designs for this structure are from the *American Agriculturist*.



MAIN FLOOR.



SECOND FLOOR.

Estimate of Cost.

160 yards excavation, at 25¢ per yard	$ 40.00
15,000 brick, foundation and chimneys (complete) at $15 per M.	225.00
32 feet blue stone, steps and sills, at 30¢ per foot	9.60
1,000 yards plastering, at 30¢ yer yard	300.00
210 stucco cornices, at 20¢ per foot	42.00
5,000 feet timber, at $20 per M	100.00
100 joists, at 16¢ each	16.00
250 wall strips, at 11¢ each	27 50
4,500 feet sheathing, at 3¢ per foot	135.00
450 clapboards, at 16¢ each	72.00
21 bunches shingles, at $1.50 per bunch	31.00
24½ squares slate, at $9 per square	220.50
950 feet outside flooring, at 5¢ per foot	47.50
2,650 feet inside flooring, at 4¢ per feet	106.00
5 cellar windows, at $3 each	15.00
23 full-sized windows, at $8 each	$184.00
11 half-windows, at $5 each	55.00
29 doors, at $7 each	203.00
3 stairs, at $10 each	30.00
Veranda and porch finish	50.00
5 kegs nails, at $4 each	20.00
4 closet finish	20.00
Mantels	30.00
Tin gutters and leaders	20.00
Carting	20.00
Painting	180.00
Carpenters' labor (not included above)	240.00
Pump, sink and incidentals	60.00
Total, complete	$2,499.60

DWELLING-HOUSE.—Design I.



DESIGN I.—ELEVATION.

As long as the argument is indisputable that there is in a square house, in proportion to the amount of outside covering, more room than in one of almost any other form, a large majority who are about to build seem to have determined to adopt that shape. The dwelling here illustrated was built on a slight elevation.



GROUND FLOOR.

PLAN OF PRINCIPAL STORY.

A, veranda, 6 by 25; *B*, hall, 10.6 by 15; *C*, parlor, 15 by 19.6; *D*, sitting-room, 15 by 19.6; *E*, book-closet; *F*, bed-room, 10.6 by 15; *G*, *G*, closets; *H*, dining-room, 12 by 22; *I*, *I*, china-closets; *J*, back porch, 6 by 7.6; *K*, veranda, 5 by 22; *L*, kitchen, 11 by 12.6; *M*, sink; *N*, cistern-pump; *O*, cupboard; *P*, pantry, 7.6 by 8; *Q*, stairway to cellar; *R*, stairway to back chambers; *S*, wood-room.

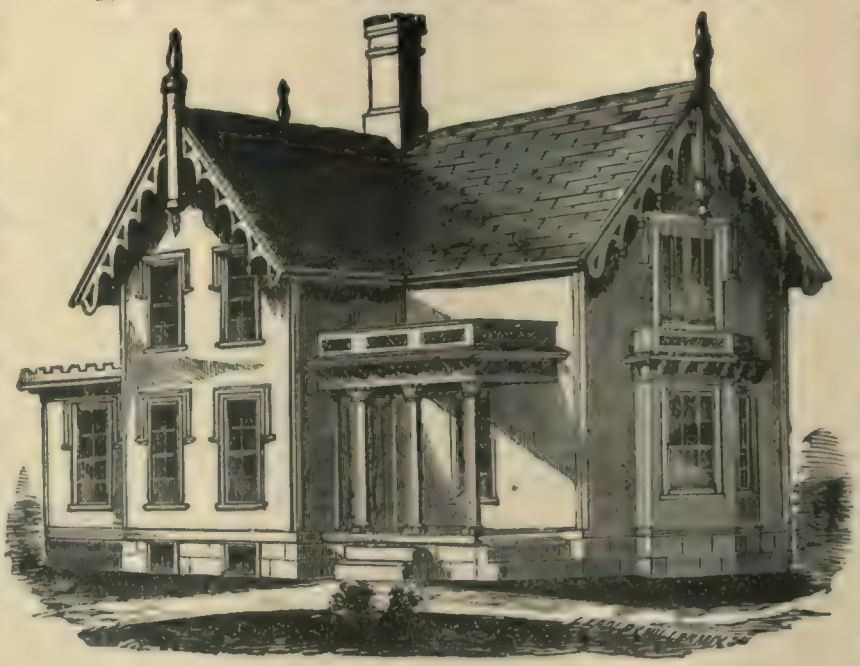
THE SECOND STORY.

The upper floor of this structure comprises a hall, three chambers, four closets, stairway to attic, two bed-rooms, bath-room, store-room and balcony.

A RURAL GOTHIC FARM-HOUSE.—Design 2.

In this plan for a rural home, with the exception of the cornice on the gables and a few cheap brackets, there is no ornamentation to cause an unnecessary outlay of money, and nothing likely to get out of repair, as is often the case with the flimsy ornaments attached to so many modern cottages.

This house is in the *Rural Gothic style*, a style which, with its broken outline, its verandas and bay windows, expresses no small amount of domestic and home feeling.



A RURAL GOTHIC FARM-HOUSE.

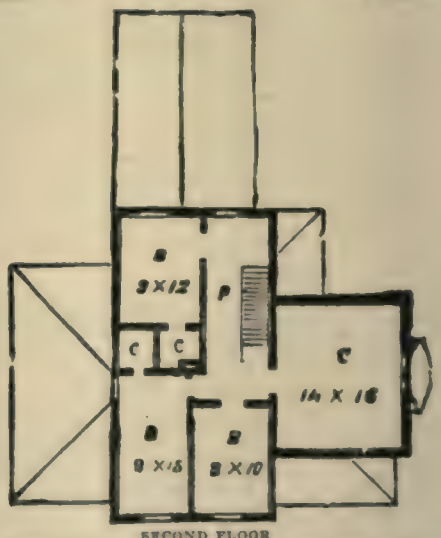


FIRST FLOOR.

P, Parlor; *D*, Dining-Room; *K*, Kitchen; *B*, *B*, Bed-Rooms; *C*, Closet; *E*, Bath; *P*, Pantry; *V*, *V*, Verandas; *W*, Wood-house.

The house was planned for a family who aim to do their own work; therefore utility, compactness and economy of labor were first considered. Yet the external appearance is quite picturesque and truthful. The part containing the two bed-rooms, bathing and clothes-room is quite economically obtained, it being a lean-to addition, one story high, with a flattish roof. Above this is a gabled window, with its stool resting on this roof. This gable rises to the height of the main roof, thus breaking the otherwise monotonous appearance of that side of the building, and balancing in a degree the mass of the other side.

The main roof rises at an angle of 45°; the wood-house part is one-story; roof, one-fourth pitch. The inside is finished appropriately, plain and neat. The lower story is nine feet high in the clear; the upper story, finished to collar-beams, is eight feet six inches. The cellar under kitchen and dining-room is well lighted, and



SECOND FLOOR

B, *B*, *B*, Bed-Rooms; *C*, Chamber, *c*, *c*, Closets; *P*, Passage.

the chimney, standing in the centre, is furnished with openings for ventilation. With this arrangement the cellar can be kept sweet and wholesome. The rooms are warmed by stoves. Fire-places may be easily built in the dining-room and kitchen, if desired. The bathing-room is easily accessible, it being connected with the kitchen bed-room, which renders it a convenient and useful apartment.

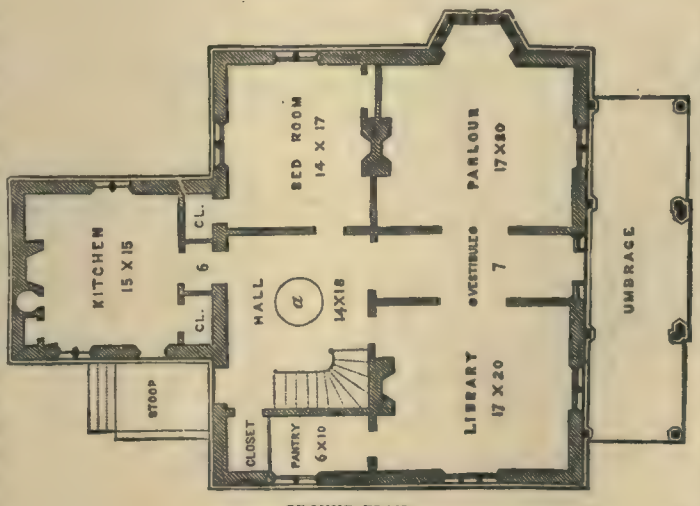
The cost of this house, with a light timber frame, clapboarded, lined on the inside with inch lumber, then furred with strip lath, lathed and plastered with two coats finish, is about $1,100.

A RURAL GOTHIC COTTAGE.—Design 3.



RURAL GOTHIC COTTAGE.

This is an admirable design for internal convenience. The plan of the first floor shows the kitchen and one bed-room on the same floor with the living-rooms. The kitchen is a wing added to the rear, and is one story in height. The situation on which this dwelling is placed has a prospect in one direction only, and the front, shown in the elevation, commands this view, the rear being nearly hidden by trees. On this front are situated two pleasant apartments, each 17 by 20 feet, opening from



GROUND PLAN.

the vestibule or entrance hall by large double doors, which, when fully opened, will throw these two rooms and the vestibule into one large apartment. Some elegance is conferred on the parlor by the bay-window, which is balanced by a double window opposite, in the dining-room. The living-room, or library, commands a pantry of convenient size, in the rear of which is a closet opening into the hall. This hall is of ample size to serve as a dining-room. There is a glazed back door opening to the rear

of the house, and a door opening into the kitchen passage, *b*, on the right. The hall also receives light from the window over this door, in the second story. This passage is formed by running a solid partition across the kitchen building, so as to admit of two doors, in order to prevent smells—one an ordinary door opening into the hall, and the other a fly or spring door opening into the kitchen. This partition also gives room for two closets, one for the kitchen and another for the bed-room. The elevation of this cottage will admit of great irregularity and picturesqueness of outline, and is productive of beautiful effects. A very pleasing mode of covering the roof is shown in the elevation. This cottage should be built of brick.

RURAL COTTAGE.—Design 4.

The accompanying plan of a rural cottage was awarded a premium which was offered some few years ago. The outside appearance is attractive, light and pleasant, and is not over-ornamental, a great fault with many modern houses. The rooms are large and most conveniently arranged, every room of the ground floor being pleasant enough for a parlor or a living-room.



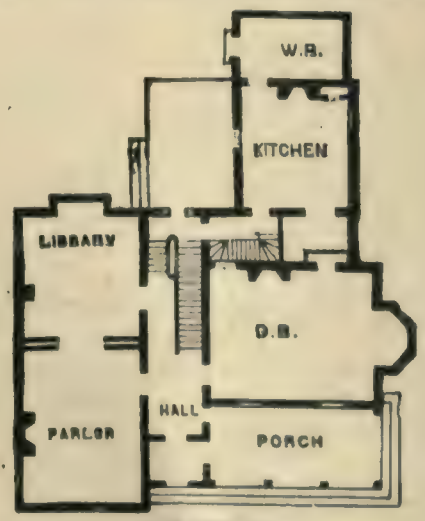
RURAL COTTAGE.

GROUND PLAN.

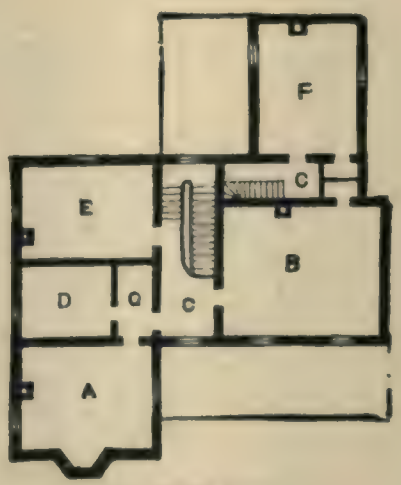
D. R., dining-room, 18 feet 9 inches by 15 feet; *Parlor*, 18 feet 9 inches by 14 feet 6 in.; *Library*, 15 feet by 14 feet 6 inches; *Kitchen*, 12 feet 6 inches by 13 feet 6 inches; *Wash-Room*, 12 feet by 8 feet; *Hall*, 6 feet 5 inches in width.

SECOND STORY.

A, bed-room, 14 feet 5 inches by 11 feet 9 inches; *B*, chamber, 18 feet 9 inches by 15 feet; *C*, *C*, halls; *D*, bed-room, 9 feet 6 inches by 11 feet; *E*, bed-room, 14 feet 6 inches by 11 feet; *F*, servants' bed-room, 12 feet 6 inches by 14 feet 6 inches; *G*, passage, 3 feet 6 inches in width.

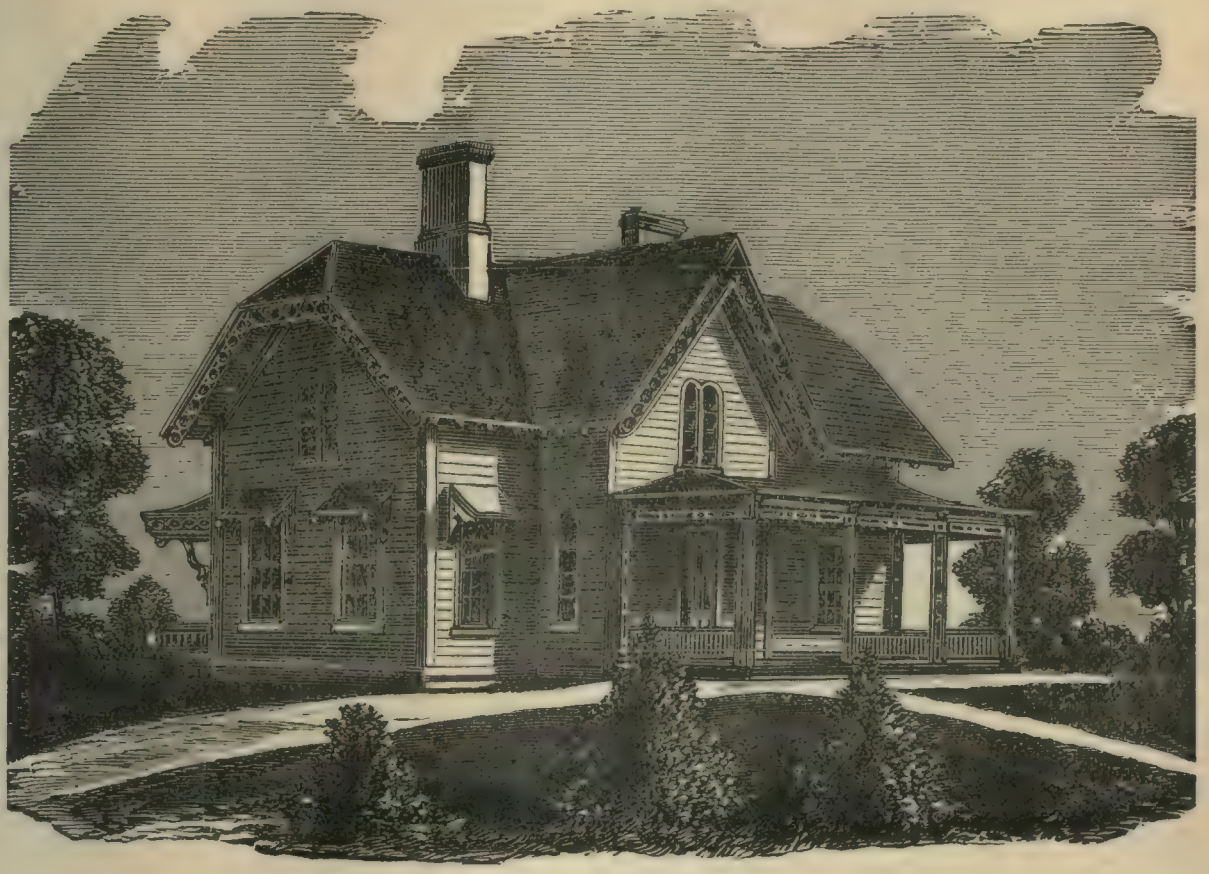


GROUND PLAN.



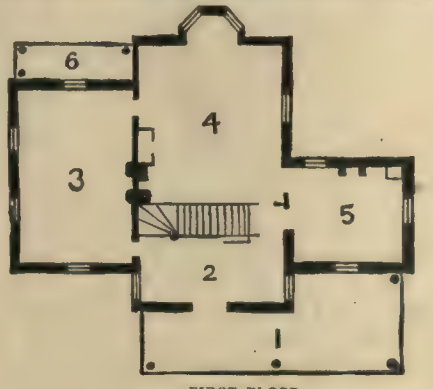
SECOND STORY.

A SOUTHERN COTTAGE.—Design 5.



A SOUTHERN COTTAGE.

This design is intended to be built of frame, and the roof to be shingled. It should stand at such a distance from the road as to afford sufficient space for ornamental shrubbery, walks, etc. The cost of the building should fall within the limits of $2,000. Upon the principal floor the porch gives access to the hall, which opens into the parlor and dining-room; the kitchen is well placed, and ample in size. The second floor contains a hall and three liberal-sized chambers. First floor: *1*, porch; *2*, hall, 10½ by 15 feet; *3*, parlor, 12½ by 20 feet; *4*, dining-room, 15 by 18 feet; *5*, kitchen, 12 by 12 feet; *6*, back porch. Second floor—*7*, hall, 10½ by 15 feet; *8*, chamber, 12½ by 20 feet; *9*, chamber, 15 by 18 feet; *10*, chamber, 12 by 12 feet.



FIRST FLOOR.



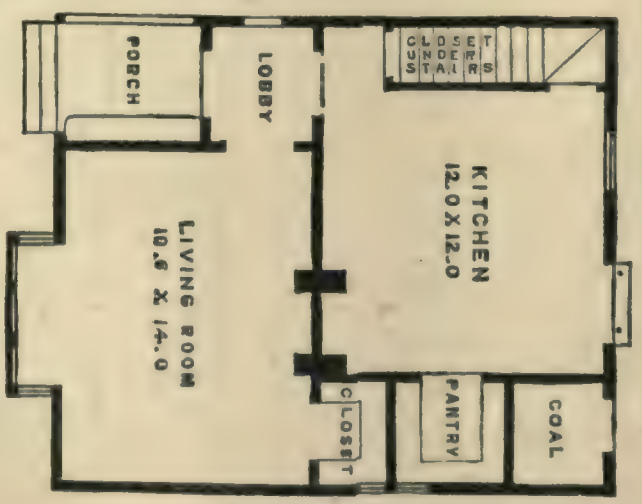
SECOND FLOOR.

AN ORNAMENTAL COTTAGE.—Design 6.



AN ORNAMENTAL COTTAGE.

This is a good design for a lodge or a seaside or summer cottage, and looks extremely well among the trees of a camp-ground. The porch is large and roomy; the living-room is of good size, well lighted by a square bay window. The kitchen is well supplied with closets. The second floor contains three bed-rooms, very conveniently arranged, and each provided with a closet. The two down-stairs rooms and the large front bed-room are supplied with open fire-places. The estimated cost is from $1,200 to $1,600, according to locality and style of finish.



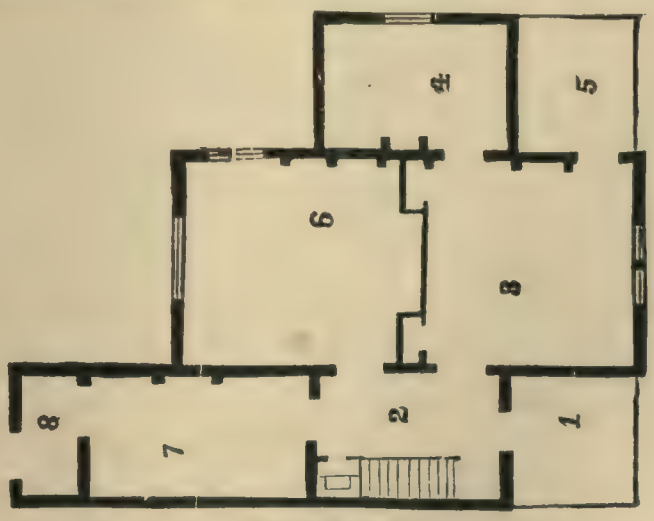
GROUND FLOOR.

COTTAGE.—Design 7.



COTTAGE.

The elevation and ground plan here given of this cottage fully explain it. The upper story consists of four bed-rooms and a bath-room. Cost, $1,800. Ground plan: *1*, porch; *2*, lobby; *3*, drawing-room; *4*, library or boudoir; *5*, outside porch; *6*, dining-room; *7*, kitchen; *8*, scullery. Note—No. *5* might be used as a conservatory.



GROUND FLOOR.

A CHEAP FARM COTTAGE.—Design 8.



A CHEAP FARM COTTAGE.

This plan is appropriate for a hilly or mountainous region. It is in the French style of roof, and allied to the Italian in its brackets and gables and half-terraced front. The body of the cottage is 22 by 20 feet, with 12-foot posts, the roof has a pitch of 50° from a horizontal line, in its straight dimensions, curving horizontally towards the eaves, which, together with the gables, project 3 feet over the walls. The terrace in front is 5 feet wide. On the rear is a woodhouse 18 by 16 feet in area, open at the house end and in front, with a roof in the same style as the main house, and posts 8 feet high, standing on the ground, 2 feet below the surface of the cellar-wall, which supports the main building. The plan of the interior arrangement any builder can follow. The construction of this cottage may be of stone, brick or wood, either producing a fine effect.



INTERIOR ARRANGEMENT.

A SUBURBAN COTTAGE.—Design 9.



A SUBURBAN COTTAGE.



FIRST FLOOR.

A, front veranda, 10 by 16 feet; *B*, hall, 7 by 20 feet; *C*, parlor, 12 by 18 feet, with bay window, 4 by 9 feet; *D*, dining-room, 15 by 20 feet; *E*, library, 12 by 15 feet, with square bay window, 4 by 8 feet; *F*, kitchen, 11 by 12 feet; *G*, pantry, 8 by 8 feet; *H*, store-room, 10 by 12 feet; *I*, coal-room, 7½ by 8 feet; *K*, wash-room, 7½ by 8 feet; *L*, veranda, 8 by 16 feet; *M*, veranda, 4 by 30 feet; *N*, cistern, 9 feet in diameter; *O*, well; *c*, *c*, closets; *s*, *s*, shelves; *b*, bath; *f*, back stairs; *t*, sink; *p*, pump. Second floor—Hall, 7 feet wide; *C*, *C*, *C*, *C*, closets; *D*, linen closet; *E*, attic stairs; *F*, servants' bed-room, 11 by 20 feet; *G*, garret; *B*, bed-room, 15 by 15 feet; *H*, bed-room, 12 by 15 feet; *K*, bed-room, 12 by 18 feet. Cost of this building, $2,500.



SECOND FLOOR.

HORSE AND CARRIAGE HOUSE.—Design 10.



HORSE AND CARRIAGE HOUSE.

This is to be built of brick, with stone basement eight feet deep. It is therefore designed for a side hill, unless the basement is dispensed with, which would be poor economy.

S is the stable part, with double stalls for six horses. *C* is carriage-room for three or four light wagons or carriages. *D* is a circular drive eight feet wide. *F* is an octagonal fountain eight feet in diameter. *H*, *H*, are harness-rooms. *C L*, *C L*, closets. *L* is ladder to loft.



FIRST FLOOR.

The hay is cut and fed from the second story. A circular pine cistern, surrounded by sawdust, occupies one corner of the second story, and supplies the fountain through a small iron pipe. The orifice of this should be drawn down to a minute hole in order to save the water and yet keep it changing continually. There should also be a stop-cock near the cistern to shut off the water in cold weather.

The dimensions are: Main part, 24 by 26 feet; wings, 16 by 24 feet; height of basements, 8 feet; first story, 10 feet; second story, 8 feet to plates. A cupola with double windows and flat roof, with staff in the centre, will be an elegant feature. Eaves should project two and a half feet. Roof not more than quarter pitch. Cost, about $1,000.

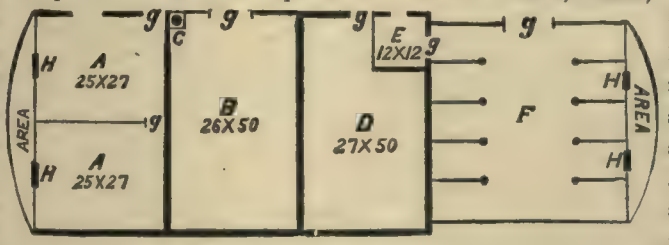
This is designed more especially for city residents, and those farmers in villages and near large towns who can afford ample accommodations for man and beast. Many would object to the drive and fountain, and yet the small space on a single floor that they occupy does not make them a costly luxury, while the air of elegance that they convey could ill be dispensed with by one who has a generous regard for taste.

A SUBSTANTIAL FARM BARN.—Design 11.

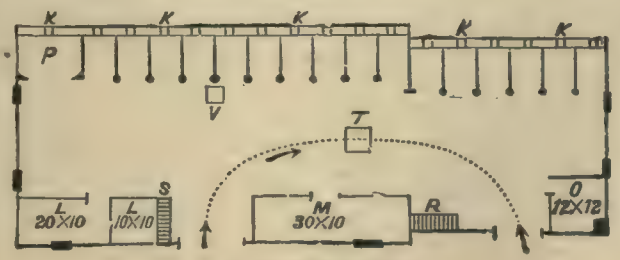


A SUBSTANTIAL FARM BARN.

This plan is a convenient as well as a substantial one. As seen in the elevation, the barn is built upon a side hill which slopes to the east. There are three distinct floors. The main building is 50 by 80 feet, and one wing 40 by 40 feet. The basement floor is divided into several departments, each well furnished for the purpose for which it is designed. *B* is the manure pit, *C*, a small cistern; *D*, a root cellar; *E*, a pen for calves; *F*, under the wing at the south end of the main building, is fitted up with a number of roomy stalls for cows. Each of the departments has a door, *g*, *g*, *g*, *g*, opening to the stock yard.



PLAN OF BASEMENT FLOOR.



PLAN OF SECOND STORY.

PLAN OF SECOND FLOOR.

This is used for horses, vehicles, etc. Along the whole length of the east side are stalls for horses provided with hay-racks, *K*, *K*, *K*, *K*, *K*. *L*, *L*, are two finished rooms, which are used as harness-rooms; *M*, a large room for putting away all the machinery and tools used about the farm; *O*, *P*, loose horse-boxes; *R*, a stairway leading to the basement or ground floor; *S*, a stairway leading up to third story; *T*, *V*, trap doors. The structure is well supplied with windows, and is light and comfortable for both man and beast.

GRAIN AND STOCK BARN.—Design 12.



GRAIN AND STOCK BARN.

This plan is a combined grain and stock barn. The grain bins are next north of the stables and form part of the partition between the stables and main floor. They are four feet in width and have a capacity for 500 bushels. The bottom of the bins slopes towards the main floor, and is ten inches above it. The bins have a free circulation of air on every side. The excavation for the structure, including that in the yard, is, at the southwest corner, about three feet in depth, and graded to a slope of one foot in forty feet, the natural slope being one in ten. A trench is dug three feet wide and one foot below the grade, and filled with broken stone, that serves as a drain, upon which the foundation rests. The foundation walls are built of stone. The first floor is divided into stables. A stairway leads to floor above, and there is also a place for harness. The forage for horses is put into tubes above. The floor is double and is made tight. The manure is dropped through a trap-door to shed. The cost of the entire structure is about $1,200.



DESIGN 13—A CONVENIENT BARN.

A CONVENIENT BARN.—Design 13.

This is the plan of a very convenient barn. The stone wall is laid in mortar and painted. The frames are all made of square timber and joists. The basement is dry, sills two feet from the ground. Grain bins so arranged that you can get to any one of them, capable of storing over 3,000 bushels, and four root bins, which will store 800 bushels, where they can be seen at any time. The basement story is 8 feet; barn posts 18 feet long. The long shed is 25 feet wide and 64 feet long; posts, 20 feet. East shed posts 9 feet long. Enter the barn from the north, with team on upper floor.

A SHEEP BARN AND SHEDS.—Design 14.

The necessity of furnishing shelter for sheep in a northern climate is, we suppose, universally acknowledged, but how much is necessary for the comfort and health of the animals, and how this is best obtained, is an open question. The accompanying engraving of a sheep barn is taken from



A SHEEP BARN AND SHEDS.

Randall's Sheep Husbandry. With those open ends closed, it seems to be a very convenient arrangement. The barn proper is used mainly for storing hay, and the wings should be made of sufficient size to afford the necessary room.

NOTEWORTHY SUGGESTIONS.

Having introduced to the reader the specific plans, etc., which will guide him in the erection of a home, a few general words of advice and suggestion will be in order.

It will be well to remember that no architect allows himself, when planning a house, to be guided by any cast-iron set of rules.

A house is a good deal like a suit of clothes, of which a fair fit may be obtained at the ready-made store, while, if close-fitting and stylish garments are wanted, the man's measure is taken and the articles made to order. In the country care should be taken not to make the house too high. Ground is cheap, and a home in the country which spreads over a goodly extent of ground has a certain air of elbow-room and capacity about it that the most magnificent four-story city dwelling fails to possess.

When building projections, window sills, etc., take care to provide a "deep molding" underneath, so that rain-water will drip off. Otherwise it will gather up the dust upon them and run down the walls, leaving mouldy streaks behind.

Where there is no plumbing in the house, the best place for the bath-room is next to the kitchen. Have the range placed against the bath-room partition and place a large tin boiler on the back of the range. From the back of the boiler carry a faucet through the partition to open over a bath-tub. By this means the carrying of water to and fro is dispensed with. To discharge the water from the bath, run a small pipe to a distance of twenty feet from the house and let it end there in a large hole filled in with loose stones and covered with earth. The water when discharged into this hole will soak away into the ground and do no harm, as it is not polluted.

To avoid rats or fire spreading through a house it is advisable to put one course of bricks in mortar at each floor level in all the furrings and partitions.

For the finest effect of foliage use trees and shrubbery as a background and flanking for the principal building. Too many large trees in the foreground cut off the view; besides, they keep out the sunshine, prevent free atmospheric circulation, and injure the house by concentrating upon it dampness and shade.

When a low site for a dwelling cannot be avoided be careful to have a thorough system of under-draining. See that the cellar-wall is raised considerably above the ground and that enough soil is spread around the house to make a yard which will shed the water readily. In a case of this kind every sanitary advantage offered by sun, soil, shelter and prospect should be carefully improved.

A square house includes more space within a given length of wall than any rectangular shape.

Of the whole house the front, and of the front the main entrance, should show the most pains in the direction of ornamentation.

Care in the disposition of rooms will save thousands of steps to those who do the house-work. Kitchen and dining-room should always be adjoining apartments. The dining-room is the place for the china closet. A wood-shed connecting with the kitchen by a covered way is a great convenience in inclement weather.

A multiplicity of closets is an invaluable boon to the housewife.

Frame houses exclude the cold much better if the studding is covered with tongued and grooved sheathing, and this in turn by tarred paper, the weather-boarding being placed over the whole. The sheathing and weather-boarding should be fitted closely around door and window frames, and the tarred paper allowed to lap over a little where a crack is likely to occur.

Where ingrain carpets, usually a yard wide, are to be used, the economical cutting will be helped by having either the length or breadth of each room some multiple of the width, as fifteen feet, eighteen feet, etc.

The difference between slate-roofing and shingles is about two cents per square foot, and where the former is used the difference in outlay purchases practically everlasting durability, a fire-proof roof, and purer rain-water in the cistern.

If free from sap, shingles will last from twenty to thirty years.

An attic, running the full length of the house, with windows at both ends, will prove a fine drying-room in bad weather.

THE LAWS OF ETIQUETTE

A Compendium of the Rules and Habits of Polite Society.

"God may forgive sins, but awkwardness has no forgiveness in heaven or earth."—*Hawthorne.*

On manners, refinement, good breeding, and even the forms of Etiquette, we are forever talking. We judge our neighbors severely by the breach of written or traditional laws, and choose our society, and even our friends, by the touchstone of courtesy. The importance, therefore, of a thoroughly systematized code of manners, in this day of rapidly widening circles of society, can scarcely be overestimated. Men are continually rising from the workshop to that position of prominence which great wealth, in this country particularly, invariably insures. A few words as to the value of good manners may not be out of place, since it is too often the habit of those who have most need of them to undervalue their importance.

The true spirit of good manners is very closely allied to that of good morals. No stronger proof of this assertion is required than the fact that the Messiah himself, in His great moral teachings, so frequently touches upon mere manners. He teaches that modesty is the true spirit of decent behavior, and openly rebukes the forward manner of His followers in taking the upper seats at banquets and the highest seats in the synagogues. In condemning the habits of the Pharisees, it was not their scrupulous cleanliness that He objected to, but their attaching too much importance to mere form. As to the philosophers, although they were seldom distinguished for fine manners themselves, they did not fail to teach the importance of them to others. Socrates and Aristotle have left behind them a series of ethics that might easily be turned into a "Guide to the Complete Gentleman;" and Lord Bacon has written an essay on manners, in which he reminds us that a stone must be of very high value to do without a setting. Johnson doubtless considered himself one of these unset gems when he made such a speech as "Sir, you are a fool," and unfortunately Johnson has too many imitators among those of greatly inferior value.

The motive in cultivating good manners has too often been misrepresented by writers upon this subject. Chesterfield states the motive for politeness to be a desire to shine or to raise one's self into a society supposed to be better than one's own. It is unnecessary to state that Lord Chesterfield's good manners, fine as they appear, have not the ring of the true metal about them. Another and very excellent definition of Etiquette is: "A shield against the intrusion of the impertinent, the improper and the vulgar." But a man's best and only right motive in the cultivation of good manners should be to make himself better than he is, to render himself agreeable to every one with whom he has to do, and to improve, if necessary, the society in which he is placed. With these objects in view, it is plainly as much a moral duty to cultivate one's manners as one's mind, and no one can deny that a man is a better citizen for being a gentleman in the sense that true courtesy makes the gentleman.

The Art of Conversation.

THE art of expressing one's thoughts in clear, simple, elegant English is one of the first to be attained by those who would mix in good society. You must talk, and talk fairly well, if you would not altogether fail of producing some kind of impression upon society. To have something good to say, and to say it in the best possible manner, is to ensure success and admiration.

The first thing necessary for the attainment of this valuable accomplishment is a good education. An acquaintance with the current literature of the day is absolutely essential to a good talker. A perfect familiarity with the English language, its grammar, pronunciation, etc., is indispensable. Those who have to contend with a lack of early advantages in this respect can supply the deficiency by private study, and close observance wherever good English is spoken. Above all should they avoid associating with those who express themselves incorrectly and vulgarly.

Nothing is so infectious as a bad accent or incorrect form of speech.

All affectations of foreign accent, mannerisms, exaggerations and slang are detestable.

Equally to be avoided are inaccuracies of expression, hesitation; and undue use of French or other foreign words, and anything approaching to flippancy, coarseness, triviality or prevarication.

The voice should never be loud, no gesticulation should accompany the speech, and the features should be under strict control. Nothing is more ill-bred than a half-opened mouth, a vacant stare, a wandering eye or a smile ready to break into a laugh at any moment. Absolute suppression of emotion, whether of anger, laughter, mortification or disappointment, is one of the most certain marks of good-breeding.

Next to unexceptionable grammar, correct elocution, and a frank, easy bearing, it is necessary to be genial. If you cannot be animated, sympathetic and cheerful, do not go into society. Dull and stupid people are but so many clogs to the machinery of social life.

The *matter* of conversation is as important as the *manner*. Tact and good feeling will, in people of sound sense, indicate the shoals and quicksands to be avoided in conversation, but for safety's sake it will be best to enumerate a few of them.

Complimentary speeches should be avoided, unless, indeed, so delicately put as to be scarcely discernible. Flattery is suggestive of snobbery, particularly if it be paid to people of great wealth and high position. It induces disgust on the part of the receiver, and insincerity on that of the giver.

The habit of "fishing" for compliments is notably vulgar, and it is one in which a certain class of vain young people are very apt to indulge, especially among themselves in private. It indicates vanity in the angler and begets contempt on the part of the one who from interested motives nibbles gently at the bait.

All "slang" is vulgar. This fact cannot be too forcibly impressed upon the minds of the young people of this day, as the alarming prevalence of slangy conversational phrases is enough to cause our decorous forefathers and mothers to rise in their graves.

Many of the daughters of our most wealthy and influential citizens have an idea that their position will excuse or gloss the vulgarity of a "cant" phrase now and then. Nothing was ever more erroneous. No position, however high, can excuse the vulgarity of this practice, and it is a grand mistake also to imagine slang to be a substitute for wit. I refer particularly to this habit among young ladies, as it is more reprehensible in them than in the opposite sex, although it indicates bad breeding on their part as well.

Scandal should be avoided above all things. It is a sin against morality as well as good taste.

Punning is a most objectionable habit in society. An inveterate punster is an intolerable bore, and unless a pun amounts to a positive witticism it should never be propounded in company.

Long arguments should be avoided in general company. They become tiresome to the hearers. Always endeavor to change the subject after it has continued a reasonable length of time.

Religion and politics are two subjects to be avoided in general conversation. People usually have strong prejudices on both these points, and it is a rule of good breeding to respect the prejudices of those about you.

Never interrupt the speech of another. This is an unpardonable sin against good breeding.

A good listener is more to be desired than a good conversationalist. In order to be a good listener you must appear to be interested, answer appropriately, briefly and to the point, and give your companion generally the impression that you are in perfect sympathy with, and highly entertained by, what he is saying.

Avoid pedantic displays of learning.

All topics specially interesting to gentlemen, such as the farm and business matters generally, should be excluded in general society.

The expression of immature opinions is always in bad taste. Persons, young or old, should not attempt to criticise books or art unless positively certain that their knowledge of the subject is sufficient to justify the criticism.

Be very careful of introducing long-winded anecdote into the conversation. Nothing is more awkward than to find an array of bored faces when one is not more than half through a long story.

Repartee should be indulged in only moderately. Otherwise it may degenerate into flippancy, a habit much to be condemned in a certain class of young ladies who think themselves unusually clever, or, as our American word goes, "smart."

In using titles, such as "General," "Doctor," etc., you must always append the surname if you are a stranger or any other than a most intimate friend. For example, you should say, "What did you observe, Doctor Gray?" not, "What did you observe, Doctor?" Names should be used as little as possible, and never familiarly. Few solecisms give greater offense than a liberty taken with a name.

In addressing a person of title in England, "My Lord" and "My Lady" are seldom used except by servants. The Prince of Wales may be addressed as "Sir," and the Queen as "Madame." A Frenchman, however, whatever his rank, is addressed as "Monsieur," and a Frenchwoman, whether

duchess or dressmaker, as "Madame." It would be as ill-bred to omit to say Monsieur, Mein Herr, and Signor, in France, Germany and Italy, respectively, as it would to say, Sir, Ma'am and Miss, as the servants do in this country.

The great secret of talking well is to adapt your conversation to your company as skillfully as may be.

People take more interest in their own affairs than in anything else which you can name. A wise host or hostess will, then, lead a mother to talk of her children, an author of his book, an artist of his picture, etc. Having furnished the topic, you have but to listen, and acquire a reputation for being amiable, agreeable, intelligent and well-bred.

If you would not be unpopular, do not always be witty, no matter what your natural abilities may be in that line. People do not like to be always outshone.

Do not too officiously supply a word or phrase if a speaker hesitate for a moment; he will think of the one he wants or supply another in good time.

Never correct a fault in pronunciation or in facts, in company or in private, if you wish to retain a friend.

Avoid such colloquialisms as "says I," "you know," and other senseless repetitions that might be mentioned. Never speak of a person as "a party," nor refer to absent persons as "he" or "she." Give the name of the lady or gentleman referred to.

In telling a joke, do not laugh yourself before the point is reached. If the joke be original, do not laugh at all.

In *tête-à-tête* conversation it is ill-bred to drop the voice to a whisper.

Egotism is always in bad taste. Allow others the privilege of proclaiming your merits.

Never speak of personal or private matters in general company.

Avoid as much as possible beginning a conversation with stale commonplaces, such as, "It is a fine day," "The weather is charming," etc.

Do not speak slightingly of the city or neighborhood in which you may be visiting. By offending the prejudices of those about you, you render yourself extremely disagreeable.

Avoid all excitability and dogmatism in conversation. Nothing is more annoying than to converse with an arrogant, loud-speaking person.

Always yield the point in conversation if you find the argument is likely to become violent.

Avoid lavishing praise on the members of your own family. It is almost as bad as praising yourself.

It is exceedingly bad taste to parade the fact that you have travelled in foreign countries, or that you are acquainted with distinguished or wealthy people, that you have been to college or that your family is distinguished for gentility and blue blood.

In speaking of husband or wife, do not use the surname alone. To say "I was telling Brown," is extremely vulgar. Always prefix the Mr.

Always endeavor to contribute your quota to the general conversation. It is as much your duty to entertain as to be entertained. Bashfulness is as much to be avoided as too much assurance.

Never ask questions of a personal nature, such as what a certain article cost, or why so-and-so did not go to the opera. They are decidedly impertinent.

Look at the person with whom you are conversing, but do not stare.

Avoid loud laughter in society.

If you carry on the thread of a conversation after the entrance of a visitor, you should always recapitulate what has been said before his or her arrival.

Remember that "an excellent thing in woman is a voice low but sweet," and cultivate a distinct but subdued tone.

Emerson says: "You cannot have one well-bred man without a whole society of such." Elsewhere he says: "It makes no difference, in looking back five years, how you have dieted or dressed; but it counts much whether we have had good companions in that time — almost as much as what we have been doing."

Rules of Presentation

AT THE

White House, at the English Court and the Papal Court.

THERE is very little ceremony about a presentation to the Chief Executive of the United States. On public occasions you will simply be presented by the master of ceremonies, while at any other time, by sending in your card, you will secure the desired interview.

THE COURT OF ENGLAND.

The wives and daughters of the clergy, of military and naval officers, of physicians and barristers, can be presented. The wives and daughters of general practitioners, and of solicitors, of merchants, and of all business men, with the exception of bankers, are not entitled to be presented. No divorced woman can be presented to the Queen.

A lady must be presented by another lady, and a gentleman by a gentleman. In seeking a lady for a sponsor, it should be remembered that, the higher her rank and social standing, the better for the one presented.

Any lady who has once been presented at court can present others.

All wraps are left in the carriage before entering the palace.

As her name is called by the Lord Chamberlain the lady advances toward the throne. If a peeress, the Queen kisses her forehead; if a commoner, she kisses the Queen's hand.

On leaving the royal presence, you must back out.

A stranger must have the credential of the American Ambassador in order to be presented at the English court.

THE PAPAL COURT.

Foreigners obtain access to the Pope through their Ambassador.

Ladies very seldom have private audience of the Pope.

The lady's toilette, be the audience public or private, must always consist of black dress, long black veil and white gloves.

When the Pope enters the gallery where those to be presented are collected, they fall on their knees, and do not rise until bidden.

Gentlemen kneel on one knee, and do not rise until desired to do so.

The proper form of address in English is "Your Holiness."

It is best to consult some local authority upon the etiquette of many petty courts, as the rules are frequently much complicated.

The lady must always be in full dress, and the gentleman in black clothes, white cravat and gloves.

Etiquette of Salutation.

IN a rude state of society every salutation was an act of worship. The commonest acts, phrases and signs of courtesy with which we are now familiar, date from those earlier times when the inferior demonstrated his allegiance by acts of servility. Our modern bow is a modified prostration. Rising and standing are acts of homage. Removing the glove on shaking hands is a custom handed down from feudal times.

FORMS OF SALUTATION.

The forms of salutation common in America are bowing, hand-shaking, kissing, and words of address.

Acquaintances of every degree of intimacy, from the closest to the slightest, are entitled to a bow. It is an act of discourtesy to refuse any one, no matter how lowly his station, the recognition of a bow.

When recognizing their gentlemen acquaintances, ladies should make a graceful inclination. It is the privilege of a lady to recognize the gentleman first.

To a casual acquaintance it is not necessary to do more than bow, but an intimate friend should be more cordially greeted.

Never fail to return a bow. It is extremely rude to refuse to recognize a salutation of this kind.

A pleasant, cordial manner, without undue familiarity, in recognizing acquaintances, conduces greatly toward a genial and friendly feeling, and is therefore worthy of cultivation. The custom of nodding to every one you meet, in thinly settled neighborhoods, is a very pleasant one, as it evinces kindliness of feeling, and should be generally followed out.

If a gentleman is smoking when he meets a lady, he should remove the cigar from his mouth in bowing. None but a boor will puff a cloud of tobacco smoke in the face of a lady who is honoring him with a salutation.

Etiquette requires a gentleman to raise his hat from his head in bowing to a lady. If passing on the street, the hand farthest from the lady should be used in removing the hat.

If on horseback, the gentleman seizes whip and reins in the left hand and uses the right for making the salute.

When a gentleman, accompanied by a friend, meets a lady acquaintance, the friend should bow also, whether acquainted with the lady or not.

A gentleman should return a bow made him on the street, even if he does not recognize the person saluting him. It may be a mistake, but it is only courteous to spare the person saluting as much embarrassment as possible.



SALUTATION IN THE STREET.

On meeting a number of persons together, with some of whom you are slightly, with others intimately, acquainted, you should greet all alike. To gush exuberantly over one and bow stiffly to another, would be making a distinction that could not fail to be remarked, and might wound the feelings.

A gentleman should not bow from a window to a lady, but if a lady recognize him from a window, he should return the salutation. It is best, however, for a lady to avoid such recognitions as much as possible. It is not in the best taste for a lady to sit sufficiently near her windows to recognize and be recognized by those passing on the street.

A gentleman, if brought into close proximity with a lady in a hallway, on a stairway, or anywhere of the kind, should recognize her presence by a bow. In going up stairs, the gentleman should precede the lady. In coming down, the gentleman should give the lady precedence with a bow.

CARDS

When, Where and How to Use Them.

TO a refined and cultivated person the visiting-card is indicative of the personal characteristics of the person whose name it bears. Its quality should be of the finest; in color white (not cream), and in shape it should be long and narrow. Gilt bevel and colored designs are never used by refined society.

The visiting card of a married lady should be in size a little larger than that of "Miss," and engraved in pure, rich script:

Mrs. Charles Corey.
19 Olive St.

Or, with reception days:

Mrs. Charles Corey.
Tuesdays in May. 19 Olive St.

For young ladies the cards should be engraved in a lighter script than that of "Mrs." For the eldest daughter the last name only should be used:

Miss Corey.

With or without the address.

For other than the eldest daughter, the full name; as:

Miss Anne Corey.

Mother and daughters calling together, the engraving is on a card in size between the "Mr. and Mrs." and "Miss":

Mrs. Charles Corey.
Miss Corey.
119 Olive St.

Or:

Mrs. Charles Corey.
Misses Corey.
119 Olive St.

The form "Mr. and Mrs." is used only a short time after marriage. The engraving should be in bold, rich script:

Mr. & Mrs. Charles Corey.
119 Olive St.

On all formal occasions, married ladies should leave their husbands' cards with their own when calling.

The handsomest style of cards is that which is engraved, but it is permissible for persons to write their own cards if they can write prettily.

A gentleman's cards should be small, fine in texture, and of five or six ply, and always white in color. The "Mr." should be prefixed in every instance; as:

Mr. Charles Corey.
119 Olive St.

Or, with club address:

Mr. Charles Corey.
St. Louis Club.

A physician may have his professional title; as:

Dr. John Wells.
309 Madison Ave.

Or:

John Wells, M.D.
309 Madison Ave.

Officers of the army and navy may have their titles:

Lieut. Frank Thompson, U.S.N.
Lieut. Edward Wilsh, U.S.A.

Etiquette of the Table

THE etiquette of the dinner-table should be mastered by all who aspire to the *entrée* of good society.

Ease, *savoir-faire* and good breeding are nowhere more indispensable than at the dinner-table, and the absence of them is nowhere more apparent. How to eat soup and what to do with cherry-stones are weighty considerations when taken as the index of social status.

No greater test of the culture, refinement and good breeding of a person can be found than the dinner hour. In the following rules, therefore, will be found a brief compendium of the most approved etiquette of the table, which those who have not had the educational advantages of polite society will do well to read and "inwardly digest."



CORRECT DINNER TABLE.

RULES —OF— Conduct at Table.

SEAT yourself in an upright position—not too close to nor yet too far from the table.

Take your napkin, partially unfold it and lay it across your lap. It is not the correct thing to fasten it in your buttonhole or spread it over your breast.

Do not trifle with your knife or fork, or drum on the table, or fidget in any way, while waiting to be served.

Keep your hands quietly in your lap, your mind composed and pleasantly fixed upon the conversation. Let all your movements be easy and deliberate. Undue haste indicates a nervous lack of ease.

Should grace be said, you will give the most reverent attention in respectful silence during the ceremony.

Exhibit no impatience to be served. During the intervals between the courses is your opportunity for displaying your conversational abilities to those sitting near you. Pleasant chat and witty remarks compose the best possible sauce to a good dinner.

Eat slowly; it will contribute to your good health as well as your good manners. Thorough mastication of your food is necessary to digestion. An ordinary meal should occupy from thirty minutes to an hour.

You may not desire the soup, which is usually the first course, but you should not refuse to take it. You can eat as much or as little as you please, but you would look awkward sitting with nothing before you while the others are eating.

When eating soup, take it from the side of the spoon, and avoid making any noise in so doing.

Should you be asked by the host what part of the fowl you prefer, always have a choice, and mention promptly which you prefer. Nothing is more annoying than to have to serve two or three people who have no preferences and will take "anything."

Never place waste matter on the table-cloth. The side of your plate, or side-dishes that have contained sauces or vegetables, will answer as a receptacle for bones, potato skins, etc.

You will use your fork to convey all your food to your mouth, except it may be certain sauces that would be more conveniently eaten with a spoon. For instance, you should not attempt to eat peas with a fork. If you are not provided with a spoon, ask for one.

The knife is used only for cutting meat and other articles of food, for spreading butter upon the bread, etc.

HOW TO SET THE TABLE

YOUR dining-table should be round or oblong.

Use only the whitest and finest of linen. Let your silver and cutlery be highly polished, and your glass and china rubbed until they fairly shine. Your table will then present a brilliant and elegant appearance.

For ordinary home occasions you will put at each person's place a knife and fork, napkin, salt-cup and goblet. The order of arrangement is according to one's taste.

The plates, if not brought in afterward by a servant, are piled up at the right hand of the host. The gentleman of the house occupies the seat at the side of the table in the center; opposite him is seated his wife or whatever lady occupies the position as head of his household. In front of *paterfamilias* is placed the joint for carving. In front of the mistress of the house is the tray containing the tea and coffee cups. The side-dishes are disposed around the table according to taste.

In the centre is usually placed the caster, containing bottles filled with various condiments, such as red and black pepper, vinegar, oil, etc. A good housekeeper will see that these bottles are always kept well filled.

Fashion, however, who is at best but a fickle jade, has decreed of late that the old-time caster be abolished, and in place thereof you shall stand at each person's place a small ornamental pepper-bottle in addition to the salt-cup and other articles, while the oil and vinegar shall be placed in handsome pitcher-shaped bottles of cut-glass and disposed at each end of the table.

In arranging the table, too, whether for the family alone or for ceremonial occasions, it must be remembered that the individual taste of the lady of the house may be brought into play with excellent effect. General rules, of course, will be followed, but results of one who has naturally an artistic eye for those things will be very different from the work of one whose eye has never been trained to harmonizing lines and colors.

As it is customary at the mere family dinner to have the carving done upon the table, it is very essential that the master of the house should thoroughly understand how to carve meat, and expeditious carving may be acquired only by practice. It would be well, therefore, if young ladies and gentlemen were more frequently initiated into the art while at home, so that they might find it less awkward when obliged to do it at their own tables.



INCORRECT DINNER TABLE.

DINNER-GIVING

AN invitation to dinner is the highest social compliment, and should be so received and treated.

While nearly all other social invitations are given in the name of the hostess alone the invitation to dinner is given in the joint name of host and hostess.

The host, in this case, occupies the position of chief entertainer. It is his duty to go first to the dining-room, taking the principal lady guest on his right arm and giving her the seat of honor on his right hand. He is expected, too, to contribute much to the entertainment of the guests.

A good dinner does not consist alone of the meat and drinks, although they must also be considered, but of the proper seating of the guests at table, of the etiquette to be observed toward them, and the perfection of arrangement in general.

Many ladies who give dinners observe the habit of keeping a book in which they record the name of every guest whom they have dined, the names of their neighbors at other dinner parties, and the names of hosts to whom they owe return dinners; for this is an attention which must be returned by those who pretend to go in society. This record is convenient for reference in arranging for guests at another dinner.

The hostess attends to the writing and sending out of invitations. The form of invitation, which should be printed from engraved plates on square cards with stamped or illuminated crest on the top centre, is as follows:

Mr. & Mrs. Charles Perry
request the pleasure of
Mr. & Mrs. Chas. Somers' company
at Dinner, on
Thursday, November 2, 1882.
1753 Olive Street.
From 4 until 6 o'clock.

The spaces containing guest's name and date are left blank on the engraved card and are filled out in writing. When the dinner is given in honor of some distinguished guest, the fact, with the guest's name, is also placed upon the card of invitation.

Invitations to dinner should be accepted or declined immediately. Never let more than a day pass before writing a note of reply, in which you positively accept or decline the invitation. There is no greater rudeness than neglecting to observe this rule. The form of acceptance of an invitation to dinner is:

Mr. & Mrs. Chas. Powers accept with pleasure Mr. & Mrs. Charles Grey's invitation to Dinner, at eight o'clock, Monday evening, January second.

Or, declining, the form is:

Mr. & Mrs. Chas. Powers regret that a previous engagement prevents the acceptance of Mr. & Mrs. Charles Grey's invitation to Dinner, Monday evening, January second.

These should be written on square cards, with monogram or crest stamped on the top centre.

The hostess having selected the ladies whom the gentlemen are to escort to dinner, their names are written on a small card, with crest or monogram in the upper left-hand corner; the card is enclosed in envelope of appropriate size, and superscribed with the gentleman's name who is to be the lady's escort. These cards are placed on a table in the gentlemen's dressing-room.

Dinner cards, with guest's name placed at each plate, designate the seats at the table.

The dinner card is kept as a souvenir of the occasion, and each hostess endeavors to procure the most unique and beautiful designs in decoration. Hand-painted cards are very popular. There should be no two alike, and each should, as near as possible, represent some personal characteristic of the guest whose name it bears.

The invitations should be sent a fortnight in advance. Many ladies drive to the houses of the guests and have the footman deliver the invitations, to be certain that they reach their destination properly. The English transmit theirs through the mail, but that plan is not usually adopted on this side of the water.

It is not best to invite too many members of one family, but it is highly improper to ask the husband without the wife, or the wife without the husband.

Punctuality, always a necessary courtesy, is specially required at a dinner party. One author goes so far as to say that if you do not reach the house until dinner is served, it is better to retire and send an apology than to interrupt the harmony of the courses by awkward excuses and cold acceptance.

Within five minutes of the dinner hour is a good time for arriving.

Husband and wife should not enter the reception-room arm-in-arm, as that is considered vulgar. The wife should go first, and the husband follow her into the room. A servant is stationed near the door to open it for the lady and announce her to the host and hostess, who stand near each other ready to receive their guests. If necessary the host introduces the guests to his wife, as it often happens, particularly at official dinners at Washington, that she is not acquainted with them.

The gentleman, having read on his card the name of the lady whom he is to escort, if he does not know her, will request the hostess to introduce him, and will begin a little conversation with her before dinner is announced.

The hostess will shake hands with each guest upon his or her arrival.

As there is no question of rank to determine precedence in America, the lady to be taken in first is the one to whom the dinner is given. In case there is no guest of honor, the oldest lady in the room is the one chosen for the honor.

If a dinner party be short of gentlemen, there should be no effort to go in in order; but the host, offering his arm to some lady, will request the others to follow, which they will do without regard to order, the hostess bringing up the rear.

The Duties of a Hostess at a Dinner

SHE should use a woman's tact in placing her guests so that those who may prove agreeable to each other shall be placed in the same neighborhood. She shall also adroitly start the conversation for them, and by well-directed remarks assist the diffident and remind the selfish *glouton* that she is observant of him. The hostess' manner should present a simple dignity and an equal interest in all her guests. If she observe some one lingering over his plate, she shall appear to be eating, so that he may not make the mortifying discovery that he is the last to be eating.

A ready wit and a merry laugh are great aids to a hostess in entertaining a party of this description.

Ceremonious dinners in the large cities are all served now *à la Russe;* that is, nothing is put on the table but the dessert, and all the other viands are served in courses by waiters. This mode has a decided advantage over the old method of putting the meats and vegetables on together, as it does away with the awkwardness and confusion of carving and serving, and keeps the table in a much neater condition.

The modern dinner table is made very attractive by an elaborate display of cut-flowers, which, taken with the requisite cut-glass and beautifully decorated china now in use, give an æsthetic aspect to what might be otherwise merely the gratification of a sensual appetite.

Habits to be Avoided at Table

DO not eat fast.

Do not make noise with mouth or throat.

Do not fill the mouth too full.

Do not open the mouth in masticating.

Do not leave the table with food in your mouth.

Be careful to avoid soiling the cloth.

Never carry anything like food with you from the table.

Never apologize to the waiters for making them trouble; it is their business to serve you. It is proper, however, to treat them with courtesy, and say "No, I thank you," or "If you please," in answer to their inquiries.

Do not introduce disgusting or unpleasant topics of conversation.

Do not pick your teeth or put your finger in your mouth at the table.

Do not come to table in your shirt-sleeves, or with soiled hands or tousled hair.

Do not cut your bread; break it.

Do not refuse to take the last piece of bread or cake; it looks as though you imagined there might be no more.

Do not express a preference for any part of a dish unless asked to do so.

Etiquette of the Ball and Party.

AN invitation to a ball signifies that the entertainment is exclusively for dancing.

The invitations to a ball should be delivered by a footman at least two weeks before the evening appointed, and should receive an immediate answer.

These invitations are from engraved plates, on note sheets, and white in color. They are worded thus:

Mrs. Frank Royal
requests the pleasure of your
company, on
Wednesday evening, December 1st.
At _____
Dancing at ten. 2862 Fine St.

The form of acceptance or declination is much the same as in the dinner invitations, substituting "ball" for "dinner."

The first requisites for a pleasant ball are good rooms, good music and plenty of good company. No one should attempt to give an entertainment of this sort without being fully prepared for considerable expenditure of time, money and patience. If you wish your friends to enjoy the dancing, you must give them good music, a good floor, and plenty of good and suitable partners. The supper, to be enjoyable, must be well served and abundant in quantity.

As you wish your ball to be the event of the season, you must have your rooms handsomely decorated. An abundance of cut flowers should be artistically scattered around, with here and there a tropical plant in hall and ball-room, on the stairs, in recesses, and wherever they can conveniently be placed with good effect and not be in the way. The fire-places should be screened by flowers in summer and by guards in winter, unless heaters are in use, in which case the latter precaution is unnecessary. By the help of screens and flowers it is easy to arrange a small gallery for the musicians, so that they shall be heard and not seen.

A refreshment-room, a dressing-room for the ladies, and one for the gentlemen, should be provided.

Ladies will attend a ball in elegant and elaborate evening dress. Gentlemen will appear in full evening dress.

A prudent hostess will limit her invitations to the size of her ball-room, in order not to overcrowd her rooms and spoil the pleasure of the dancers. It is safe to issue a few more invitations than you can accommodate, on the chance of a number not appearing on the arrival of the evening.

The most favorable room for dancing is one which is nearly square, but rather longer than wide. Such a room will admit of two quadrille parties at once.

The top of a ball-room is the part nearest the orchestra. It is well to know this, as in dancing the top couples always lead off.

A good floor is highly important. In private houses nothing is better than a good Holland floor-cloth well stretched over the carpet.

Let there be an abundance of light and good ventilation in your ball-room.

Good music is as essential at a ball as good wine at dinner, and no hostess should tax her guests for this entertainment. Very few amateurs can play dance music well. Besides that, no one wants to be tied to the piano all the evening playing while others are dancing. For this reason, a hostess should provide skilled musicians to play for her guests.

It is customary to provide three pieces for dancing: a piano and two violins, or piano, cornet and violin. Sometimes the harp and violins only are used.

The ladies' toilet-room should be well supplied with mirrors, pins, needles and thread for repairing rents, and plenty of attendants to assist the fair ones at their toilets. It is well to check wraps and give a duplicate check to each lady.

The supper hour is usually from 12 to 1 o'clock, and the hour of departing from 2 to 3 A.M. The style of the supper is apt to be regulated by the wealth of the host. If he have ample means it is customary to put the whole thing in the hands of a caterer, and have it served up in good style, with all the extra appliances of salads, oysters, fancy ices, coffees, wines and fruits, and cakes of every description.

If the supper be home-made, coffee and sandwiches, with fruit, and two or three kinds of ices and cake, are all-sufficient. There should always be an abundance provided, however, as dancers are usually hungry people.

No one sits down to a ball supper. If seats are ranged around the room for the ladies, the gentlemen stand.

Carpet should be laid from the edge of the pavement to the doorway, and if the evening be wet, a temporary covering should be erected for the protection of the ladies in passing from their carriages to the house.

A gentleman should not accept an invitation to a ball if he does not dance, as it is an act of positive neglect for gentlemen to hold themselves aloof when ladies are waiting anxiously for an invitation to dance, and attempt to dance without a knowledge of the art is not only to make yourself ridiculous, but your partner as well.

GENERAL SUGGESTIONS

IT is folly to attempt to dance a figure with which you are unacquainted. In round dances, hold the lady's hand easily at the side, but do not place it behind you, nor raise it high in the air. In quadrilles, a knowledge of the French terms employed is necessary in only the very choicest circles. These are:

Balances.—Swing partners.
Balancez aux coins.—Swing corners.
Balancez quatre en ligne.—Set four in a line.
Chaine Anglaise.—Head couples right and left.
Chaine Anglaise double.—Double right and left.
Chaine Anglaise demi.—Half right and left.
Chaine des dames.—Ladies' chain.
Chaine des dames double.—Ladies' chain beginning together.
Chaine la grande.—Grand right and left.
Chassez.—Move to right and left or to left and right.
Chassez croisaz.—Ladies and gentlemen *chassez* in opposite directions.
Cavalier seul.—Gentlemen advance alone.
Demi promenade.—All half promenade.
Dos-à-dos.—Back to back.
Glissade.—A gliding step.
La grande ronde.—All join hands and advance and retire twice.
La grande tour du rond.—Join hands and dance round figure.
La grande promenade.—All promenade round figure.
Le moulinet.—Hands across.
Demi-moulinet.—Ladies advance to center, give right hand and retire.
Traverses.—Opposite persons change places.
Re-traverses.—Cross back to place.
Vis-à-vis.—Face to face.

Be not, while dancing, confined to observations concerning the weather or the number of people present; but having asked a lady to dance, be as agreeable to her as possible.

Etiquette of The German, Receptions

AND PARTIES IN GENERAL.

THE GERMAN

CUSTOM decides that no lady's series of entertainments are complete without "the prime favorite."

Young ladies are now much accustomed to forming social clubs, with pretty, suggestive names, which meet at the houses of the different members.

The informalities of the German necessitate great care in the inviting of the guests. It is necessary that all shall have been formally introduced, as no lady can refuse to dance with a gentleman whom she may have received as a partner so long as she remain in the circle.

Favors are given in most of the figures, some of them being very elegant and expensive, while others are comparatively inexpensive, but unique in design. The principal point is to have a set of favors differing in design from those presented at any other entertainment.

Invitations to the German should be sent at least ten days in advance. They should be from engraved plates, and in the following form:

Mr. & Mrs. Frank Royal
request the pleasure
of

company, on Tuesday evening,
January 2d, at 8 o'clock.
The "German." 2382 Pine St.

RECEPTIONS or AT HOMES

THE full-dress reception is an event of considerable importance in the social world.

Invitations should be issued at least two weeks beforehand, as for balls or dinners. It prevents previous engagement. They should be engraved on heavy white card of the finest texture. The form is:

Mr. & Mrs. Chas. Wilde
request the pleasure of your
company on
Tuesday evening, November 6th.
from 8 until 11 o'clock.
2382 Olive St.

The invitations should be delivered by the footman, as are wedding and dinner invitations, etc.

A serving-man should be provided to open the carriage door, another to receive the cards and show the guests to their dressing-room.

The gentlemen escort their ladies to the host and hostess. If there is to be dancing it is mentioned on the card of invitation.

In New York it is quite the custom to present each guest with some elegant little souvenir of the occasion, something similar to the favors of the "German."

When the daughter is receiving with her mother, her name is placed on the card of invitation below her mother's, thus:

Mrs. Charles Wood.
Miss Wood.
request the pleasure of your
company, on
Friday evening, January 6th.
from 8 until 11 o'clock.
2382 Olive St.
Dancing.

Young ladies are permitted to dance during the evening, the mother remaining at her post of reception; but the daughter should return to her place as soon as the dance is over.

A young lady should not dance more than once with the same gentleman at her own reception.

You should attend receptions in full evening dress, and good breeding demands that you do not present yourself at the beginning, nor remain until the close of the evening.

When your name is announced, look for the lady of the house and pay your respects first to her. She will usually be found stationed near the door, particularly if the party be large. You are at liberty, however, to salute such friends and acquaintances as you may meet in making your way through the crowd.

It is well to throw open as many rooms as possible, and to have tables scattered around here and there, covered with choice engravings, photographic views, valuable scrapbooks, etc., for the entertainment of the guests.

If some eminent person be among the company, it is not in good taste for every one to follow him around, hanging on his words and striving for an introduction.

The hostess should see that her company does not break up into cliques of twos or threes, as such a plan leaves a number out who do not possess any great conversational powers.

Should any guest be invited by the hostess to play the piano, she should not wait to be urged, offering excuses, but rise quietly, proceed to the piano and play something short and suitable to the gathering.

A natural tact will suggest what to play. In a company of musical connoisseurs a sonata of Beethoven would not be out of place, but in a general company something lighter and shorter would be more appropriate.

Never play upon the invitation of any one but the hostess. Should any one else make the request, turn it off as gracefully as you can, but do not comply.

PARTIES IN GENERAL

THE guests should be more intimate acquaintances than at a ball or full-dress reception. The hours before supper are spent in social conversation. After supper, which is served much earlier than at a ball, dancing is usually the order of the evening.

The time for departure is not later than 1 o'clock.

A call, or leaving of the card, should always precede an invitation to a party.

A call in person or by card is required by etiquette after the party, from all those who have been the recipients of invitation.

The same general rules of etiquette apply in the case of parties as at full-dress receptions and balls.

The laws of courtesy and good breeding will be observed by gentlemen and ladies wherever they may be, whether on the croquet ground, at the informal picnic, or at the formal dinner party. And the code is much the same.

JUVENILE PARTIES

IT is now quite fashionable to give entertainments for the younger members of the family. These birthday and doll parties are frequently the source of as much amusement to the elders as to the little ones who attend them. A regularly engraved card is sent out after this design:

Miss Laura Louise
and
Master Charles Powers
request the pleasure of your
company, on
Tuesday evening, December 10th.
from 4 to 6 o'clock.
Punch and Judy half-past five.
2341 Olive St.
R. S. V. P.

Another form is:

Miss Louise Powers, with
her Sisters,
requests the pleasure of your
company, on
Tuesday ev'g, December twelfth.
from four until nine.
1753 Olive St.
Doll Reception. R. S. V. P.

BAL MASQUE

Invitations to a *bal masque* should be elegant in design and read as follows:

Mask.

Mr. & Mrs. Chas. Powers
request the pleasure of your
company in fancy dress.
on
Wednesday ev'g. January 23d.
at eight o'clock.

R. S. V. P. 2341 Pine St.

TWENTY-FIRST BIRTHDAY PARTIES.

A grand celebration is usually given in honor of a son's attainment to his majority. The form of invitation, on engraved cards, is:

Mr. & Mrs. Clarence Wilde
request the pleasure of your
company.
Tuesday evening, January 8th.
at eight o'clock.
at the
21st Birthday Celebration
of their son.
Charles M. Wilde.

1911 Olive St.

BREAKFASTS

Invitations to breakfasts and suppers should be informal and written on correspondence cards, with crest or monogram on top left corner. The form is:

G. N. P. 2951 Pine St.

Breakfast.
Tuesday, at ten o'clock.
December 4th.
Mr. G. N. Powers.

AFTERNOON RECEPTIONS

A VERY popular entertainment for ladies exclusively is the tea or afternoon reception. The hours are from 4 to 6 P.M., and if continued later these affairs partake of the nature of more formal entertainments. The refreshments are light, and all ostentatious display is avoided.

The hostess receives her guests at the table, and dispenses tea and the other delicacies to them, which they receive from the tray borne by domestics, and eat or drink standing. On leaving they can dispense with the formality of bidding the hostess adieu. The form of invitation, printed on large-sized visiting cards from engraved plates, is:

Mrs. Frank Royal.
Tuesday, September 5, 1883.
1753 Olive St.
from 4 until 6 o'clock.

YOUNG LADIES' DEBUT

ETIQUETTE decides that in this country, as in England, young ladies shall seldom be seen, except at family gatherings, until their school life shall be terminated, and then they shall be formally introduced into society.

Three weeks previous to their debut, cards are left for those acquaintances who are to receive invitations. A week or ten days previous engraved invitations are sent.

During the reception the young lady's position is to the right of her mother or chaperon, where she receives the congratulations of her friends. The guests should make their congratulations brief, and pass on to make room for others.

The first dance should be accorded only to some intimate friend of the family, and the *débutante* should dance but once with the same gentleman in the course of the evening.

For one year the young lady is allowed to make calls only with her mother or other suitable chaperon. After that time she can receive or call at her pleasure.

Etiquette of Riding and Driving.

RIDING is an accomplishment in which all ladies and gentlemen should be proficient. Riding, like swimming, cannot be taught by precept; it must be taught early and practiced constantly—as little in the school and as much upon the road as possible.

A lady's riding-habit should be simple, close-fitting, and made by a first-rate tailor. The later habit is much shorter and narrower than the old style, and is always worn with pantaloons of the same material underneath.

A lady can indulge her love of luxury only in her riding-whip. This may be jewelled, and as elegant as she may wish. Her gloves must always be unexceptionable.

The art of mounting must be properly acquired, since in riding, as in other things, it is proficiency in trifles that proclaims the artist.

The lady, having mounted the riding-steps, places her left foot in the stirrup, rises into her seat and lifts the right leg into its place, taking care to let the habit fall properly.

If no riding-steps are at hand, her escort or groom must assist her to mount. Hence she must learn to mount in both ways. In the latter case she places her left foot in the right hand of the gentleman or servant; he lifts it vigorously but gently, and she springs lightly into the saddle.

A lady who rides much and wishes to keep her figure straight should have two saddles, and change from one to the other.



LADY AND GENTLEMAN RIDING.

The great point in riding is to sit straight in the middle of your saddle, to know the temper of your horse, and to be able to enjoy a good galop in moderation.

Ladies should not lean forward in riding.

They should not rise in the saddle in trotting.

They should know how to hold the reins and the different uses of each.

A gentleman, in riding, as in walking, gives the lady the wall.

In assisting a lady to mount, hold your hand at a convenient distance from the ground, that she may place her foot in it. As she springs, assist her with the impetus of your arm. Practice only will enable you to do this properly.

A gentleman should be able to mount on either side of his horse. He places his left foot in the stirrup, his left hand on the saddle, and swings himself up, throwing his right leg over the horse's back. Nothing is more awkward than to see a man climb into a saddle with both hands.

The correct position is to sit upright and well back in the saddle, to keep the knees pressed well in against the sides of the saddle, and the feet parallel to the horse's body; to turn the toes in rather than out. The foot should be about half-way in the stirrup.

The great desideratum in the art of riding is plenty of confidence. A timid person can never be a good rider.

When escorting a lady be sure that her horse is quite safe, every part of its harness in perfect condition, and keep on the alert to assist her on the slightest sign of danger.

A gentleman riding with two ladies will keep to the right of both, unless it be necessary for him to ride between them in order to render some assistance.

In dismounting, the gentleman will take the lady's left hand in his right, remove the stirrup and place her foot in his left hand, lowering her gently to the ground.

Keep on the right or off side, and never presume to touch her mount any more than you would that of a gentleman friend.

ETIQUETTE OF DRIVING

THE art of driving is simple enough, but requires practice. No one should pretend who does not understand every part of the harness and be able to harness or unharness a horse himself.



LADY ALIGHTING.

A good driver will use his horse well, whether it be his own or another's. He will turn corners gently, and know when to drive fast and when to ease him up.

In the carriage, a gentleman places himself with his back to the horses, leaving the best seat for the ladies. Only very elderly gentlemen are privileged to take the back seat to the exclusion of young ladies. No gentleman driving alone with a lady should sit beside her, unless he is her husband, father, son or brother. Even an affianced lover should remember this rule of etiquette.

To get in and out of a carriage gracefully is quite an accomplishment. If there is but one step, and you are going to face the horses, put your left foot on the step and the other in the carriage, so that you can drop at once into your seat. If you are to sit the other way, reverse the process. Be careful to turn your back the way you intend sitting, so as to avoid turning around.

A gentleman should be careful to avoid stepping on the lady's dress in getting into the carriage. He should be careful also not to catch it in the door as he closes it.

A gentleman should always get out of a carriage first, in order to assist the lady in alighting.

When a gentleman intends taking a lady driving in a one-seated vehicle, he should always be sure his horse is a safe one before trusting himself with it, as he is obliged to get out to assist the lady in and out of the vehicle. When helping her in he should be careful always to hold the reins so that he can check the animal in case it should start suddenly.

The dress should never be lifted in alighting from a carriage, but left to trail upon the ground.

Etiquette of the Street

A LADY will bow first if she meets a gentleman acquaintance on the street.

A lady will not stop on the street to converse with a gentleman. If he wishes to chat with her he will turn and walk by her side until he has finished his conversation, then raise his hat and leave her.

It is not etiquette for a lady to take the arm of a gentleman on the street in the day time, unless he be a lover or husband, and even then it is seldom done in America.

In England it is permissible for a lady to accept the arm of even an ordinary acquaintance on the street. In foreign cities it is not *comme il faut* for ladies to appear on the street at all without a gentleman.

A gentleman escorting two ladies may offer each an arm, but a lady should never under any circumstances walk between two gentlemen holding an arm of each.

On meeting friends or acquaintances on the street or in public places, you should be careful not to call their names so loudly as to attract the attention of those around.

Never call across the street, and never carry on a conversation in a public vehicle unless you are seated side by side.

Gentlemen should never stare at ladies on the street.

In walking with a lady a gentleman should take charge of any small parcel, book, etc., with which she may be burdened.



STREET PROMENADE SCENE.

Never recognize a gentlemen unless you are perfectly sure of his identity. Nothing is more awkward than a mistake of this kind.

A well-bred man must entertain no respect for the brim of his hat. True politeness demands that the hat be removed entirely from the head. Merely to nod or to touch the brim of your hat is a lack of courtesy. The body should not be bent at all in bowing.

A gentleman will always give a lady the inside of the walk on the street.

Ladies should avoid walking rapidly on the street, as it is ungraceful.

A gentleman walking with a lady should accommodate his step to hers. It looks exceedingly awkward to see a gentleman two or three paces ahead of a lady with whom he is supposed to be walking.

Staring at people, expectorating, looking back on the street, calling in a loud voice, laughing, etc., are very bad manners on the street.

A gentleman attending a lady will hold the door open for her to pass. He will also perform the same service for any lady passing in or out unattended.

A gentleman may assist a lady from an omnibus, or over a bad crossing, without the formality of an introduction. Having performed the service, he will bow and retire.

No gentleman will smoke when standing or walking with a lady on the street.

A quiet and unobtrusive demeanor upon the street is the sign of a true lady, who goes about her own affairs in a business-like way and has always a pleasant nod and smile for friends and acquaintances.

Etiquette of Travelling

NO class of people carry with them so many distinguishing marks as the experienced and the inexperienced traveller. The former is always cool and collected, occupies the best seat in the middle of the car on the shady side and next to the window, and is especially remarkable for a total lack of flurry and anxiety.

All this is owing to the fact that he has had a long and varied experience as a traveller, and in that way gained a knowledge of the minor points in travelling which go far toward begetting that state of peaceful confidence which is the source of much envy to the uninitiated.

The experienced traveller is always on time; he keeps a time-table of the trains at hand for reference and never fails to have his watch going correctly. His baggage is always properly checked and his ticket safely stowed away in his inside pocket. Being certain that he is on the right train, with everything in order, his mind is serene and a smile of benignant complacency illumines his countenance as he unfolds his evening paper or reviews the faces of his fellow passengers.

The inexperienced traveller comes hurrying on the train at the last moment, all in a heat and flurry, and is scarcely seated on the last seat in the car, where he'll catch all the drafts from the opening door, when he discovers that he has lost his ticket or forgotten to check his baggage. Then ensues a storm of anxious enquiries and querulous complainings, and before he has reached his destination he is voted a bore by all his fellow passengers.



RAILWAY CAR SCENE, PROPER.

SUGGESTIONS TO TRAVELLERS

CONSIDER what route you intend taking when you are contemplating a journey, and decide definitely upon it. Go to the ticket-office of the road and procure a time-table, where you will find the hour for leaving, together with names of stations on the road, etc.

When you intend taking a sleeping-berth, secure your ticket for same a day or two before you intend starting, so as to obtain a desirable location. A lower berth in the centre of the car is always the most comfortable, as you escape the jar of the wheels and drafts from the opening door.

Take as little baggage as possible, and see that your trunks are strong and securely fastened. A good, stout leather strap is a safeguard against bursting locks.

In checking your baggage, look to the checks yourself, to make sure the numbers correspond. Having once received your check, you need not concern yourself further about your baggage: The company is responsible for its safe delivery.

It is a wise precaution to have your name and address carefully written upon any small article of baggage, such as satchel, umbrella, duster, etc., so that in case you leave them in the car the railway employes may know where to send them.

An overcoat or package lying upon a seat is an indication that the seat is taken and the owner has only left temporarily. It would, therefore, be rude in you to remove the articles and occupy the seat.

It is only courteous for a gentleman, seeing a lady looking for a seat, to offer the one beside him, as she scarcely likes to seat herself beside him without such invitation, although she will, of course, if there are no entirely vacant seats, do so in preference to standing.

A courteous gentleman will also relinquish his place to two ladies, or a gentleman and lady who are together, and seek other accommodations. Such a sacrifice always receives its reward in grateful admiration of his character.

Ladies travelling alone, when addressed in a courteous manner by gentlemen, should reply politely to the remark; and in long journeys it is even allowable to enter into conversation without the formality of an introduction. But a true lady will always know how to keep the conversation from bordering on familiarity, and by a quiet dignity and sudden *hauteur* will effectually check any attempt at presumption on the part of her strange acquaintance.

Always consult the comfort of others when travelling. You should not open either door or window in a railway coach without first ascertaining if it will be agreeable to those near enough to be affected by it. Ladies, in particular, should remember that they have not chartered the whole coach, but only paid for a small fraction of it, and be careful not to monopolize the dressing-room for two or three hours at a stretch, while half a dozen or more are waiting outside to arrange their toilets.

Genteel travellers will always carry their own toilet articles, and not depend on the public brush and comb.

A lady will avoid over-dressing in travelling. Silks and velvets, laces and jewelry are terribly out of place on a railroad train. The appointments of the traveller may be as elegant as you please, but they should be distinguished by exceeding plainness and quietness of tone. Some ladies have an idea that any old thing is good enough to travel in, and so look exceedingly shabby on the train.

Ladies Travelling without Escort.

IN America the liberty of action accorded women is so much greater than that allowed in any other country in the world that a special code of etiquette on some points is necessary in order to inform them how to act under all circumstances.

In England, the land of greatest liberty after ours, no lady of much gentility makes a journey without a male escort or at least the company of her maid. Here it is quite common for ladies of the best families and greatest refinement to make journeys of length without the attendance of a male relative. Very young ladies are not allowed to travel, however, without the attendance of some older person, either male or female.

The directions for travelling having been given elsewhere, we will confine our directions to the manner in which an unattended lady shall behave at

THE HOTEL.

A LADY should enter a hotel by way of the ladies' entrance. A servant is always in attendance at the door to show her to the parlor, where she will be waited upon by the proprietor or clerk, to whom she should present her card and state how long she intends remaining.

A simple request to the waiter, particularly if it be backed by a slight remuneration, will ensure his meeting her at the dining-room entrance and preceding her to her seat, thus obviating the slight awkwardness of crossing a full dining room without an escort.



RAILWAY CAR SCENE, IMPROPER.

All conversation at a hotel table should be conducted in a low tone of voice so as not to attract attention, and especially should care be taken that no remarks of a personal nature are overheard by others. A lady will, of course, not enter into conversation with any but friends at a public table.

While waiting to be served it is permissible to read a paper at a hotel table. All orders should be given in a low but clear and distinct tone of voice. Never ask any one at the table to pass you anything. That is the duty of the waiter.

Never point to any article wanted; a glance at the dish, with a quiet request or a mere look at the waiter, is usually sufficient.

All loud and ostentatious dressing is out of place in a hotel dining-room. A quiet, unassuming dress of cloth or plain black silk is the most ladylike.

When a lady is without escort it would be best for her not to take her supper in the dining-room late in the evening. She can have a meal sent to her room at a trifling extra cost.

A lady should never loiter in the halls, nor stand alone at a hotel window. She should never hum to herself while going through the halls, nor play on the piano, nor sing in a hotel parlor unless invited to do so.

It is desirable when stopping at a hotel to secure a pleasant, comfortable room, with plenty of air and sunshine and a good outlook.

Be sure to lock your trunk and the door of your room whenever leaving it. If your have valuables, such as diamonds and much money, it is safer to leave them with the proprietor to be locked in the safe. They can easily be obtained whenever wanted by ringing for them.

It is never the act of a lady or gentleman to be scolding at servants. If their conduct gives you dissatisfaction, complain to the proprietor. Always tender your requests in a pleasant and courteous manner, and you will usually find them promptly attended to.

As a lady without escort is apt to require more service than one who has, it is only right to tender a little extra fee to the servant who has been especially attentive. A retaining fee, that is, a small sum given at the outset, is very apt to secure all the attention that can be desired.

A lady should always avoid all hurry and bustle in travelling by securing her ticket beforehand and having her trunk packed and ready to express in good time.

In order to secure herself positively against all impertinence and intrusion when unattended, a lady has need of a great deal of dignity and quiet reserve; if she be naturally of a lively and chatty disposition, she must beware how she indulge these innocent propensities, lest they be misunderstood. An intelligent and thoroughbred lady, however, can travel alone anywhere in America without experiencing the slightest lack of respect or courteous attention.

Home Etiquette.

CHILDREN should speak respectfully to parents and obey the slightest command immediately.

Parents should address a child in a mild, pleasant, but firm manner. Issue no orders but those of a just and reasonable nature, and then see that they are obeyed.

Govern with justice and kindness and home will be indeed a little heaven on earth.

THE LADY'S TOILET

Cleanliness is the outward sign of inward purity. Cleanliness is health, and health is beauty.

The first business of the dressing-room is the bath, and this should be a complete bath, and not simply a hasty washing of the face. It is not to be supposed that a lady washes to become clean, but simply to remain clean. A bathing of the entire body at least once a day is essential to health. It is not necessary to have a bath tub for this purpose, but merely an ordinary basin of tepid water, with soap, sponge and clean towels.

The whole body may be quickly sponged off, or the sponge may be dispensed with and the hands alone used to convey the water to the body, after which dry the body thoroughly with a soft towel, and then use a coarse Turkish towel vigorously until the skin is red from the friction. In lieu of the coarse towel, a liberal use of the flesh-brush may be made, but either one or both must be regularly used, as nothing tends to keep the complexion in good condition so much as the daily use of the flesh-brush.

Persons living in cities where Turkish baths are established will find a bath of this kind once a week very beneficial to their health. Oftener than this the baths would be apt to have an enervating effect. But an occasional Turkish bath is the most effectual cleanser in the world.

Early rising contributes not only to the preservation of health, but the proper condition of the mental faculties. Too much sleep induces minor ailments both of the body and mind. Fresh air, moderate exercise and good ventilation, together with the daily bath, are the great health-preservers.

THE TEETH.

Scrupulous care is necessary to the preservation of the teeth. The teeth should be carefully brushed, not only every night and morning, but after every meal.

The best and only needful tooth powder is a simple preparation of chalk. The numerous dentifrices advertised are most of them worthless and many of them positively injurious.

A good tooth-brush, not too stiff, is necessary. Very hot and very cold things and a great deal of sweets are injurious to the teeth.

Upon the first indication of decay, a good dentist should be consulted; cheap dentistry is bad economy.

THE BREATH.

It goes without saying that a sweet breath is one of the essentials of happiness, and should therefore be carefully looked to. The principal causes of a bad breath are a disordered stomach, decaying teeth and catarrhal affections. In the latter case a good specialist should be consulted. When it arises from digestive difficulty, the diet should be changed to one better suited to the system.

The eating of anything that will give an unpleasant odor to the breath is to be avoided.

THE NAILS.

Much care and attention is given to the nails by those who are particular in matters of the toilet. Of late years the care of the nails has been elevated to a profession, and persons calling themselves "manicures" make it their business to dress the nails of ladies of fashion.

It is sufficient, however, if you keep the nails carefully and evenly trimmed—great care, however, being required to preserve the correct shape, and keep all superfluous skin entirely removed. Plenty of warm water, Windsor soap and a nail-brush are all that is required to keep the hands in good condition.

THE HAIR.

The hair should be regularly brushed, morning and evening, with a clean hair-brush. It is important that the brushing be frequent; it is also important that the brush be quite clean.

The brush should be washed every day with hot water and soda, in order to preserve a glossy appearance to the hair. Occasionally the hair may be cleansed with a mixture of glycerine and lime juice. Pomades and oil should be carefully avoided.

Never attempt to change the color of your hair by means of dyes and fluids. Your own hair, as nature colored it, is apt to be the only shade that will correspond with your eyes, eyebrows and complexion. Practices of this kind are much to be condemned. They indicate a senseless desire for fashion, and an equally unladylike desire to attract attention. The use of hair dyes, false hair, etc., is almost as much to be condemned as painted cheeks and pencilled brows.

THE COMPLEXION.

As to the art of obtaining a good complexion, all the recipes in the world can have but little effect compared with the excellence of early rising, regular habits, careful diet and absolute cleanliness. The various lotions recommended by Madame Rachel, and others of her ilk, the milk bath, pearl powders and washes of every kind, would never be needed if ladies were always careful to take plenty of exercise in the open air, wear broad-brimmed hats in the sun and veils in the wind.

The face should never be washed when heated from exercise. Wipe the perspiration from the skin and wait until it is sufficiently cool before you bathe even in warm water. Rain-water is the best for bathing purposes. If an eruption break out on the skin, consult a physician.

DRESS

IN dress, as in other things, society has passed under that wave of new impulse which has so much changed the appearance of our houses, the arrangement of our interiors, and even the texture and fashion of manufactures.

That which we wore placidly, and even with a little complaisance and sense of superior good taste, twenty years ago, would fill us with alarm and horror now. The change which has taken place is more than a change of fashion: it is a change of principle. The differences of shape and form, which vary from one three-months to another, are but fluctuations of the standard, but the alteration which we have recently arrived at is fundamental. It has affected not only the cut, but the color, the fabric, the kind of our garments, and has relieved the severity of rule and left such a margin for individual fancy as was not dreamed of twenty years ago.



A NEATLY DRESSED LADY.

The change is chiefly visible in feminine apparel. Where are now the fine full tones of blue and of green, the bright pinks, the orange yellow, in which we once flaunted in happy ignorance, knowing no better and believing, with some show of reason, that we were imitating the tints of nature, the color of the flowers and of the birds? Where are now our apple-green gowns and our silk shawls "shot" with blue and yellow?

The world has paled since those favored days; even the vaporous tarlatan of the ball-room has sunk into softer tints, and in daylight no color affronts the eye of heaven that is not neutral.

The result of the new impulse is to make Art the guide in matters of dress; but with all due respect to that divine Priestess of the Beautiful, we cannot but believe that she would prove a dangerous guide in a matter that involves so many practical features and so many individual peculiarities.

Whatever painters may think, there are many costumes effective in a picture which would not be at all beautiful upon a living woman, and indiscriminate following of the fancies of Art would not be much less fatal than the usual indiscriminate following of fashion.

No dress can be good which is not useful and into which the elements of individuality do not enter. The garments adapted for the slim and the tall and the graceful will never, however admirable in themselves, agree with the dowdy, the dumpy or the ordinary.

Fashion, indeed, throughout all its vagaries, has this one principle of humanity in it, that it is almost always designed to help those who want help, to cover deficiencies of nature, to conceal the evils wrought by time, and to make those look their best to whom no special charms have been given.

Beautiful persons are free of all such bonds. Whatever they wear becomes them -- they confer grace, they do not receive it; therefore fashion is immaterial to them. The time has never been when they were not allowed to flout it at their will. What saying is more general than, "She can wear anything?" It is said in admiration, in enthusiasm, in envy, and in spite, but still it is said constantly of these favorites of Nature. And youth, even when not beautiful, has, to a certain extent, the same privilege.

As a matter of fact, dress is by no means an unimportant item in human well-being, and it may fairly claim to be considered in the light of a fine art.

To dress well requires something more than a full purse and a pretty figure. It requires taste, good sense and refinement.

A woman of taste and good sense will neither make dress her first nor her last object in life. She will remember that it is her duty to her husband and to society to always appear well dressed.

Dress, to be in perfect taste, need not be costly, and no woman of right feeling will adorn her person at the expense of her husband's comfort and her children's education.

The toilet of a well-dressed woman will be as well-chosen at the breakfast-table as at ball or reception.

If she loves bright colors and can wear them with impunity, she will combine them as harmoniously as an artist does his colors. If she is young her dress will be beautiful; if she is old she will not affect simplicity.

GENERAL SUGGESTIONS ON DRESS.

The golden rule in dress is to avoid extremes.

Always follow rather than lead the prevailing fashion in dress.

Do not be so original in dress as to be peculiar, and do not affect fashions that are radically unbecoming to you.

Ladies who are neither very young nor very striking should wear quiet colors.

It is not necessary to be rich in order to dress well. A little care in the choice and arrangement of materials is all that is necessary.

Be sure that your dressmaker is a woman of taste and perfectly mistress of her art. Do not trust to any ordinary sewing-woman who may know nothing about harmony of colors and grace of outlines.

A faultless morning toilet in summer should consist of the freshest of muslins, white or of delicate tints, with a tasteful arrangement of fresh, new ribbons, and plain linen collar spotlessly laundered. These, however, are better suited to young unmarried or married ladies.

Ladies of more advanced years may wear dark silks in the morning, but all jewelry, hair ornaments and fine laces should be eschewed for morning wear.



AN OVER-DRESSED FEMALE.

Street costumes should always be quiet in tone. Fine woolen materials, in some shade of brown, gray, olive, dark green or dark blue, make the most suitable and natty street costumes. Any lady of taste who has once seen herself in some such costume, well-made and fitting to perfection, with hat and gloves to correspond, will never sigh for anything richer or more expensive for street wear.

A lady of refinement will never wear a very expensive toilet of velvet or of silk or brocade of any light and conspicuous shade upon the street. Such costumes are exclusively for the carriage, for calling or for receptions.

Much jewelry is out of place in the daytime, whether on the street or for indoor wear. It is particularly out of place in church. A handsome brooch and small, unpretending ear-rings are the only jewelry permissible in the daytime. Heavy bracelets, necklaces, a profusion of diamonds and finger-rings should be reserved for evening wear.

English ladies are much more strict in this matter than American ladies. According to their code it is never allowable to wear diamonds, pearls and other precious stones in the daytime. Custom, however, supports the wearing of a pair of solitaires in the ears at any time and in any place in America.

Young ladies should not wear much jewelry at any time.

Mere costliness in jewelry is not always the best test of value. A rare intaglio or finely-wrought cameo, being a work of art, is a more desirable possession than a large diamond which any one might purchase.

A stone of exquisite loveliness and by no means common is the opal.

Ball dresses may be composed of any rich materials, either silk or satin, cashmeres, velvets or diaphanous materials, but they are usually of some light shade. It is not customary in America to go *decolleté* to balls. In England court etiquette prescribes bare neck and arms for full-dress.

Dinner and reception dresses should be as rich and elegant as you can afford. Natural flowers are appropriate for dinners; artificial ones for balls.

In dressing the hair, be careful not to adhere too closely to the prevailing fashion if it is not becoming to you. Considerable latitude is always allowed in this respect.



NEATLY DRESSED GENTLEMAN.

The dressing of the neck affords much opportunity for the display of taste. If the shoulders are broad, care must be taken not to enlarge the effect by too much trimming.

Short persons should be careful not to diminish their height by numerous flounces, horizontal stripes or much trimming of any description. Stripes (perpendicular) have a tendency to increase the height and should therefore be worn by short and avoided by tall people.

Every lady will pay especial attention to her gloves and shoes. Nothing more emphatically marks the lady than to be well shod and immaculately gloved. Both gloves and shoes should fit closely, but not be too tight. For evening wear the gloves cannot be too light, nor for street wear too dark. Slippers should never be worn upon the street. Black boots of soft French kid are the most genteel for all occasions except parties and balls.

It is needless to say that a refined lady will give as much attention to the quality and finish of those garments which are not visible as to those which are.

Dark shades are best adapted to stout people.

Light shades and delicate tints are suited to the thin blonde type.

The complexion, however, must always decide the question of color.

THE BRUNETTE'S COLORS.

Scarlet, orange and yellow are the brunette's colors *par excellence*, but she also looks well in glossy black and white. The tasteful *brune* will always manage to have a scarlet blossom deftly twisted in her dark hair, or an orange knot looped at her throat. Dark green also sets off a dark complexion.

Dark green and red will improve a sallow complexion, while those rich, creamy complexions one sees occasionally are set off by a reflection of yellow.

THE BLONDE'S COLORS.

The golden-haired blonde is charming in a setting of dark violet which may shade off into lilac or blue. Either light or dark shades of green look well with the ruddy face of the blonde, but the delicate, shell-pink complexion and fair hair of the very light blonde are exquisite in a dress of pale Nile green.

The blonde may also wear all the neutral colors, such as gray, drab, fawn, and the russets and browns as well; in fact, there is very little except bright reds that blondes cannot wear.

CONTRAST AND HARMONY IN COLORS.

Ladies should be particularly careful in selecting contrasting colors for the same costume that they will harmonize as well; else the beauty of the garment is utterly destroyed. We have often heard it said, "The color of that feather absolutely kills the rest of the dress." This is when the wearer knows nothing of the rules which govern the harmony of colors, and for the benefit of such we affix the following brief table of harmonizing colors:

Black and orange; black and white; black and maize; black and scarlet; black and lilac; black and pink; black and slate color; black and buff; black, white, yellow and crimson; black, orange, blue and yellow.

Green and gold; green and yellow; green and orange; green and crimson; green, yellow and scarlet; green, yellow and crimson.

Blue and gold; blue and orange; blue and salmon color; blue and drab; blue and stone color; blue and white; blue and gray; blue and straw color; blue and maize; blue and chestnut; blue and brown; blue and black.

Crimson harmonizes with purple, with gold, with orange, with maize, with black and with drab.

Lilac harmonizes with gold, with maize, with cherry, with scarlet, with crimson.

Purple harmonizes with gold, with orange and with maize.

Yellow harmonizes with red, with brown, with chestnut, with violet, with crimson and with black.

Red harmonizes with gold, with green and orange, with black and yellow, with white or gray, and with yellow, black and white.

PERFUMERY

IN the use of perfumery ladies must be extremely moderate.

Perfumes should properly be used only in the evening, and then they should be of the most *recherché* kind.

Many ladies have a special perfumery, such as violet, or white rose, which they use invariably in a very delicate manner, so that it becomes individualized, and their friends come to associate them, insensibly, with the flower whose perfume they exhale.



THE DUDE.

THE GENTLEMAN'S DRESSING-ROOM.

THE first requisite of the male toilet is, of course, the bath, and this should be as bracing as the constitution will allow.

The cold-water bath the year round is the best where the constitution will endure it, but there are very few physiques, especially among Americans, that will admit of it.

A sponge bath once a day, with a liberal use of the flesh-brush and a coarse huckaback towel, will answer every purpose.

A sun and air bath after the water bath is an excellent thing, and is frequently recommended by physicians. A fresh-water bath should always be taken after bathing in the sea.

The teeth should be cleaned at least twice a day, and smokers should rinse the mouth well after smoking.

Keep the nails clean and short. Long nails are vulgar.

The beard should be kept well-trimmed and well-combed, and plenty of warm water and soap are necessary to keep them thoroughly clean.

Do not indulge in long hair, thinking it gives you an artistic look. Painters and poets of eminence may be excused for wearing flowing locks, but in men of less degree it is a ridiculous affectation.

The mustache should be neat and not over-large. A mustache *à l'Empereur* is absurd and smacks of the fop.

The dress of a gentleman should be perfectly unobtrusive, in entire harmony and becoming.

Above all things should he avoid the extremes of fashion, such as wearing his coat extremely or absurdly short. When fashion dictates tight pantaloons let him not have his so tight that he cannot bend in them; nor, if broad ones be the mode, shall he have them so wide as to resemble his wife's gown.

Loud patterns in cloth and glittering trinkets on the watch-chain are indications rather of the gambler than the gentleman.

A gentleman will have his clothes made by a good tailor, easy of fit and excellent in quality, but subdued and quiet in tone, and neither too much in nor too far behind the prevailing style. Bulwer says, "A gentleman's coat should not fit too well," and he is right, as no self-respecting man wants to be taken for a tailor's dummy.

The regulation dress for evening wear—but it should never be worn before sundown, no matter how ceremonious the occasion—is black swallow-tail coat, black trowsers, black vest, cut low to show the shirt-front, thin patent-leather boots, a white cravat, and light kid gloves.

A gentleman should wear no jewelry but such as has a use, except it may be a handsome ring. His sleeve-buttons and collar-studs should be of plain gold, but genuine. False jewelry is vulgar, and elaborate ornamentation is foppish. It is more genteel even to dispense with a gold watch-chain and wear only a plain black guard.

If a ring is worn, good taste would suggest that it be a fine antique intaglio rather than an expensive diamond.

ETIQUETTE OF Engagements and Marriage.

TO lay down a set of rules for the regulation of courtship would prove as hopeless a task as Mrs. Partington's attempt to mop up the Atlantic Ocean. The best and only reliable counsellors at this crisis of a young man's or young woman's life are feeling and good sense.

No wise man will intrude himself upon the presence of a lady, nor risk being regarded as a bore, neither will a modest woman receive the attentions of a man too eagerly, however agreeably she may regard them.

A woman of tact can let a gentleman see that his attentions are not disagreeable to her without actually encouraging him. It is equally possible for a man to be quite *devoted* without becoming a lover.

Unless a woman is a downright coquette, a man of sense ought to be able to judge whether his proposal will be favorably received or not. It is exceedingly dishonorable for either a man or a woman to trifle with the affections of the other.

THE PROPOSAL.

The manner of making the offer of marriage must always be regulated by circumstances. If the case be a genuine love affair, the time and place and language of the proposal are apt to be the result of chance and impulse, rather than of premeditation on the part of the lover.

If the gentleman be ready of speech and attractive in person, it is best for him to plead his cause in *persona propria*, and receive his acceptance with the added sweetness of smile and blush and love-lit glance, or his rejection, if such it must be, with the tender, saving grace of sadly-murmured regrets.

If the suitor, however, be of a nervous temperament, or "fears his cause too much" to risk a personal interview, he should make his proposal in writing.

In making his offer of marriage, however, a man should always bear in mind that he is a petitioner, that he is begging of the woman to grant him her liberty, her obedience, her very life, and he should comport himself with suitable humility and accept her acquiescence with becoming gratitude.

DEPORTMENT OF THE ENGAGED.

UPON the conduct of both parties during the preparatory stage of the engagement depends in a great measure the probability of its being carried to the desired consummation of marriage. The gentleman in particular should be careful to observe the following directions:

He should be tender and devoted to his bride-elect.

He should treat her family with the greatest respect.

He should particularly guard against acting as though he were already a member of the family by taking liberties that he is not justified in taking.

He should be always on the alert to do any member of his *fiancée's* family a service; in fact he should play the devoted friend to his betrothed and all her relatives.

He should conform to all the rules of the household, being punctual at meals, never intruding at unseemly hours; kind to the children and courteous toward the servants.

He should not compromise the reputation of his future wife by keeping her up until a late hour. His visits may be as frequent as he pleases, but should always be short. The custom of lovers staying until a late hour of the night is no longer permitted in genteel society.

He should be attentive and gallant toward other ladies, but not sufficiently so to excite the jealousy of his betrothed.

He should not monopolize her company in general society, but should always be accorded the first place as her escort by the lady, and should be watchful of all her wants.

He may send her few or many presents, as she seems disposed to accept them. If the lady or her family object to her receiving costly gifts he may keep her supplied with flowers, with books, and with sweetmeats if she have a taste for bon-bons.

An engagement is usually sealed by the wearing of a ring. If the accepted lover be wealthy a brilliant of rare value is the correct thing for the engagement ring, and should be worn upon the first finger of the left hand. If, however, his means are limited, a less expensive ring will answer the purpose.

In the matter of gifts, too, a sensible man will not give more than he can afford, nor run into debt in order to procure them.

The lady must be careful not to excite the jealousy of her lover by flirting with other men.

She must carefully avoid any undue familiarity and effectually check any attempt toward such on his part.

She should remember that nothing so soon disgusts a man with a woman as any indications of untidiness or uncleanliness on her part. She should therefore be exceedingly neat and clean in his presence, and have her dress always chosen with taste.

Let their conduct generally toward each other be such as to inspire confidence, and in case of a misunderstanding let her not hesitate to make the advance toward reconciliation.

THE WEDDING

IT is not usual for the lady to visit any but her intimate friends after the announcement of the engagement. She should, however, leave her visiting-card at the residence of her friends just previous to the sending of the invitations, which should be sent at least two weeks prior to the wedding.

The invitations should be engraved in a rich, heavy script, and should be of such shape as to fold in a long, narrow envelope, not square, for the latter shape is now somewhat out of date.

The quality and tint of the invitations, "At Home" and church cards should be uniform with the envelopes, as the slightest difference would spoil their beauty.

The invitations, the "At Home" cards and the church cards are all placed in one envelope, bearing the name only of the parties to whom sent. The full address is placed on the outside envelope.

Invitations should be delivered by the footman at the residence of the parties for whom intended. The footman, too, should always be in full livery. The invitation should be in this form:

Mr. & Mrs. Charles Corey
request your presence
at the marriage of their daughter,
Miss Clara,
to
Mr. Clarence Wilde,
Tuesday afternoon, Jan. 6, 1883,
at 4 o'clock,
St. George's Church,
St. Louis.

If a reception be given at the residence of the bride's parents, a card to those whose presence is desired should be enclosed in the envelope with the invitation: thus:

Mr. & Mrs. Charles Corey,
At Home,
Tuesday afternoon, Jan. 6, 1883,
from 4:30 until 10 o'clock,
2360 Olive St.

Or:

Reception,
from half after four until ten,
2360 Olive St.

It is quite customary at large weddings to issue usher or church cards, thus avoiding the crowd of curious sight-seers who cause much annoyance by filling all the best seats. This card should be small and engraved in script, with crest or monogram. In form:

St. George's Church,
Ceremony at four o'clock.

In case of the reception being given on the return of the bridal party the card should read:

Mr. & Mrs. Clarence Wilde,
At Home,
Tuesday evenings in January,
from 8 until 10,
2360 Olive St.

Should the bride's parents decide to give her a reception on her return to the city, the "At Home" card will contain the bride's name below her mother's; in all other respects the same as model given.

When the wedding is at the house, the form of invitation is same as at church, except that the number of residence is substituted for name of church.

For "At Home" weddings, combining ceremony and reception, the form is:

Mr. & Mrs. Charles Corey
request the pleasure of your
company at the
Wedding Reception of
Mr. & Mrs. Clarence Wilde,
Tuesday afternoon, Jan. 6, 1883,
at half past four,
2360 Olive St.

General Hints on Etiquette.

THERE are a number of the minor points of etiquette which, not coming directly under any of the preceding heads, might otherwise be omitted, and which, therefore, we propose touching upon in this chapter.

The art of giving and receiving presents is not always an intuition. A generous person may unwittingly wound where he intends to please, while a really grateful person may, by want of tact, appear to deprecate the liberality of his friends.

A gift should always be valuable for something besides its price. It may have been brought by the giver from some famous place; it may have a valuable association with genius, or it may be unique in its workmanship. An author may offer his book or an artist his sketch, and any one may offer flowers, which are always a delicate and unexceptionable gift.

A rich person should be careful how he gives to the poor, lest he hurt their pride, while a poor person can only give to those of greater wealth something that has cost only affection, time or talent.

Never allude to a present which you have given; do not even appear to see it if you are where it is.

Do not give a present in hopes of a return.

If you present a book to a friend, do not write the name in it unless it is requested. By doing so you are taking for granted that your present will be accepted, and also that a specimen of your penmanship will give additional value to the gift.

It is in bad taste to undervalue a gift which you have yourself offered. If it is valueless, it is not good enough to give to your friend; and if you say you do not want it yourself, or that you would only throw it away if they did not take it, you are insulting the person whom you mean to benefit.

Married ladies may occasionally accept a present from a gentleman who visits frequently at the house, and desires to express his gratitude in that way.

An unmarried lady should not accept presents from any gentleman to whom she is not engaged, or who is not a relative.

Never refuse a gift unless you have a very good reason for so doing. However poor the gift, you should show your appreciation of the kindness of heart which prompted it. All such deprecatory phrases as "I fear I rob you," or "I am really ashamed to take it," etc., are in bad taste, as they seem to imply that you think the giver cannot afford it.

Do not quickly follow up a present by a return. It looks too much like payment. Never, however, fail to make an immediate acknowledgment of the receipt of a gift.

Remember, when you are prone to give in charity to the sick or the needy, that "he who gives quickly gives double."

Never indulge in egotism in the drawing-room. The person who makes his family, his wealth, his affairs or his hobby the topic of conversation is not only a bore but a violator of good taste. We do not meet in society to display ourselves, but to give and take as much rational entertainment as our own accomplishments and those of others will afford.

The man or woman who engrosses the conversation is unpardonably selfish.

We should not neglect very young people in our drawing-rooms. If we wish our children to have polished manners, and to express themselves well, we must lead them to enter into the conversation that is going on.

All irritability and gloom must be thrown off when we enter society.

It is a duty to always look pleased. It is likewise a duty to appear interested in a story that you may have heard a dozen times before, to smile on the most inveterate proser; in short, to make such minor sacrifices of sincerity as one's good manners and good feelings may dictate.

In conversation the face must be pleasant, wearing something that almost approaches to a smile.

Always look at the person who is conversing with you, and listen respectfully. In answering try to express your thoughts in the best manner. A loose manner of expression injures ourselves much more than our hearers, since it is a habit which, once acquired, is not easily thrown off, and when we wish to express ourselves well it is not easy to do so.

A good bit of advice is the saying, "Think twice before you speak once," as thus only can you learn to always speak to the point.

The young of both sexes would find it an inestimable advantage through life to cultivate from the outset a clear intonation, a well-chosen phraseology, a logical habit of thought, and a correct accent.

A well educated person proclaims himself by his simple and terse language. Good and clear Saxon is much to be preferred to high-sounding phrases and long words; it is only the half-educated who imagine such a style is elegant.

Never employ extravagance in conversation. Always employ the word that will express your precise meaning and no more. It is absurd to say it is "immensely jolly," or "disgustingly mean." Such expressions show neither wit nor wisdom, but merest flippancy.

Avoid awkwardness of attitude as well as awkwardness of speech.

No man or woman is well-bred who is continually lolling, gesticulating or fidgeting in company.

No lady of good breeding will sit sideways on her chair, or with her legs crossed or stretched apart, or hold her chin in her hands, or twirl her watch chain, while she is talking; nor does a well-bred gentleman sit astride of his chair, or bite his nails, or nurse his leg. A man is always allowed more freedom than a woman, but both should be graceful and decorous in their deportment.

Never indicate an object by pointing at it. Move the head or wave the whole hand.

Sneezing, coughing and clearing the throat must be done quietly when it cannot possibly be avoided; but sniffling and expectorating must never be indulged in in decent society.

Physical training is necessary to both men and women who aspire to be of the best society. Every gentleman should know how to fence, to box, to shoot, to swim, to ride, to dance, and how to carry himself. Calisthenic exercises and dancing should be taught every young woman. Even though she may not intend to dance, the acquirement of the art tends to produce that grace of movement which is so beautiful in woman. Swimming, riding, driving, archery and all suitable outdoor amusements strengthen the muscles and give beauty and suppleness to the human form divine.

A good memory for names and faces, and a self-possessed manner, are necessary to every one who would make a good impression in society. Nothing is more delicately flattering to another than to find you can readily call his or her name, after a very slight acquaintance. The most popular of great men have gained their popularity principally through the possession of this faculty.

Shyness is very ungraceful, and a positive injury to any one afflicted with it. It is only allowable in very young people. A person who blushes, stammers and fidgets in the presence of strangers will not create a very good impression upon their minds as to his personal worth and educational advantages. Shyness may be overcome by determined mixing in society. Nothing else will have an effect upon it.

In conversing with a person, do not repeat the name frequently, as it implies one of two extremes, that of familiarity or haughtiness.

If you are talking to a person of title, do not keep repeating the title. You can express all the deference you desire in voice and manner; it is unnecessary and snobbish to put it in words.

A foreigner should always be addressed by his full name; as, Monsieur de Montmorenci, never as Monsieur only. In speaking of him, give him his title, if he have one. For example, in speaking to a nobleman you would say, Monsieur le Marquis; in speaking of him in his absence, you would say, Monsieur le Marquis de Montmorenci. Converse with a foreigner in his own language. If you are not sufficiently at home in the language to do so, apologize to him, and beg permission to speak English.

Married people are sometimes guilty of the vulgar habit of speaking of each other by the initial letter of their first name, or the wife of her husband as "Jones," omitting the "Mr." This denotes very ill breeding, and should be strenuously avoided.

Never speak of absent persons by their Christian names or their surnames; always refer to them as Mr. —— or Mrs. ——.

Gentlemen, when with ladies, are expected to defray all such expenses as car fares, entrance fee to theatre, refreshments, etc.

In entering an exhibition or public room where ladies are present, gentlemen should always lift their hats. In France a gentleman lifts his hat on entering a public omnibus, but that is not necessary according to the English code of etiquette.

To yawn in the presence of others, to put your feet on a chair, to stand with your back to the fire, to take the most comfortable seat in the room, to do anything in fact that displays selfishness and a lack of respect for those about you, is unequivocally vulgar and ill-bred.

If a person of greater age than yourself desire you to step into a carriage or through a door first, it is more polite to bow and obey than to decline. Compliance with, and deference to, the wishes of others, is always the finest breeding.

A compliment that is palpably insincere is no compliment at all.

Boasting is one of the most ill-bred habits a person can indulge in. Travelling is so universal a custom now that to mention the fact that you have been to Europe is to state nothing exceptional. Anybody with wealth, health and leisure can travel; but it is only those of real intelligence that derive any benefit from the art treasures of the Old World.

When in general conversation you cannot agree with the proposition advanced, it is best to observe silence, unless particularly asked for your opinion, in which case you will give it modestly, but decidedly. Never be betrayed into too much warmth in argument; if others remain unconvinced, drop the subject.

Gentlemen precede a lady in going up stairs, but follow her in going down.

In walking with a lady through a crowd, precede her, in order to clear the way.

In walking on a public promenade, if you meet the same friends and acquaintances a number of times, it is only necessary to salute them once in passing.

Never speak of your own children as "Master" and "Miss" except to servants.

Never correct any slight inaccuracy in statement or fact. It is better to let it pass than to subject another to the mortification of being corrected in company.

No one can be polite who does not cultivate a good memory. There is a class of absent-minded people who are to be dreaded on account of the mischief they are sure to create with their unlucky tongues. They always recall unlucky topics, speak of the dead as though they were living, talk of people in their hearing, and do a hundred and one things which, in slang parlance, is "treading on somebody's toes." Carelessness can be carried to such a pitch as to almost amount to a crime. Cultivate a good memory, therefore, if you wish to say pleasant things and to avoid disagreeable ones.

People must remember that they must give as well as take in this life, and that they must not hesitate to go to a little trouble in those small observances which it is so pleasant to accept.

When entrusted with a commission, do not fail to perform it. It is rude to "forget."

On entering a room filled with people, do not fail to bow slightly to the general company.

If you accept favors and hospitalities, do not fail to return the same when the opportunity offers.

The most contemptible meanness in the world is that of opening a private letter addressed to another. No one with the slightest self-respect would be guilty of such an act.

Never betray a confidence.

Never question a child or a servant about the private affairs of the family.

Do not borrow money and neglect to pay. If you do, you will soon find that your credit is bad.

When offered a seat in the street car, accept the same with audible thanks.

It is very awkward for one lady to rise and give another lady a seat in a street car, unless the lady standing be very old, or evidently ill and weak.

Never fail to answer an invitation, either personally or by letter, within a week after its receipt.

Do not fail to return a friend's call in due time.

Never play practical jokes. The results are frequently so serious as to entail life-long regret on the joker.

Avoid any familiarity with a new acquaintance. You never know when you may give offence.

Always tell the truth. Veracity is the very foundation of character. Without it a man is a useless and unstable structure.

When writing to ask a favor or to obtain information, do not fail to enclose postage stamp for a reply.

When an apology is offered, accept it, and do so with a good grace, nor in a manner that implies you do not intend changing your opinion of the offence.

It is rude to examine the cards in a card-basket unless you have an invitation to that effect.

Never look at the superscription on a letter that you may be requested to mail.

Never seal a letter that is to be given to a friend for delivery. It looks as though you doubted his or her honor in refraining from examining the contents

When walking with a lady, it is etiquette to give her the wall, but if she have your arm it is quite unnecessary to be changing at every corner you come to. After one or two changes the habit becomes ridiculous.

Always adopt a pleasant mode of address. Whether you are speaking to inferiors or to your equals, it will alike give them a kindly and happy impression of you.

Long hair and a scrawling signature do not constitute genius. Be careful, then, how you draw upon yourself the ridicule of being a shallow pretender by adopting either or both.

Never fail to extend every kindly courtesy to an elderly person or an invalid.

Never ridicule the lame, the halt or the blind. You never know when misfortune may be your own lot.

Do not make promises that you have no intention of fulfilling. A person who is ever ready with promises, which he fails to execute, is soon known as a very unreliable party.

Punctuality is a most admirable quality. The man or woman who possesses it is a blessing to his or her friends. The one who lacks it is wanting in one of the first requisites of good-breeding.

It is extremely rude to look over the shoulder of one who is reading or writing. It is also rude to persist in reading aloud passages from your own book or paper to one who is also reading.

Do not appear to notice any defect, scar or peculiarity of any one. It is the height of rudeness to speak of them.

Never presume to attract the attention of an acquaintance by a touch, unless you are extremely intimate. Recognition by a simple nod or spoken word is all that can be allowed.

Do not be quick to answer questions, in general company, that are put to others.

You should not lend an article that you have borrowed without first obtaining permission from the owner.

Avoid all exhibition of excitement, anger or impatience when an accident happens.

Neither a gentleman nor a lady will boast of the conquests he or she has made. Such a course would have the effect of exciting the most profound contempt for the boasters in the breasts of all who heard them.

If you cannot avoid passing between two persons who are talking, never fail to apologize for doing so.

Never enter a room noisily. Never enter the private bed-room of a friend without knocking. Never fail to close the door after you, and do not slam it.

Temper has much more to do with good-breeding than is generally supposed. The French are allowed to be the most polite people in the world, when they are really only the most amiable.

Learn to make small sacrifices with a good grace; to accept small disappointments in a patient spirit. A little more of self-control, a little more allowance for the weaknesses of others, will oftentimes change the entire spirit of a household.

We are not to be polite merely because we wish to please, but because we wish to consider the feelings and spare the time of others—because we wish to carry into daily practice the spirit of the precept, "Do unto others as you would have others do unto you."

Etiquette of the House.

MANAGEMENT OF SERVANTS.

EVERY mistress of a house is a sovereign queen, whose court is the home circle, which is dependent entirely upon her grace and executive ability for happiness, comfort and refinement.

In a well-ordered household the machinery is always in order, and always out of sight, and it is the special care of the mistress thereof to secure servants so reliable, so efficient and so well trained that this machinery shall run quite noiselessly, and with the most perfect satisfaction.

No well-bred woman talks of her servants, her dinner arrangements, or of her housekeeping affairs generally, to her visitors in the drawing-room, nor yet to her husband in the privacy of the domestic circle.

No lady, however gifted, can afford to neglect the management of her household. If she be possessed of immense wealth, she may afford to hire an efficient housekeeper, but even then the final responsibility rests upon her. No tastes and no pleasures should be allowed to stand in the way of this important duty.

The moment you enter a house, the personality of the mistress is betrayed by the atmosphere which seems to pervade it. If she be a good and efficient ruler, the servants wear a cheerful air, the children are obedient and courteous, the rooms are tastefully furnished and spotlessly clean and neat. The unexpected guest receives a cordial welcome, and is conducted to a well-appointed table. In such a home scandal and gossip are never heard, and peace and contentment are the household gods.

The first and most important rule for the governing of the household is to regulate the expenditure so that it shall come easily within the income.

Elegance adds greatly to the enjoyment of life, but if it is to be purchased at the expense of all peace of mind, you had better do without it altogether. If you cannot be elegant, you can at least be clean, and the true gentlewoman will be discovered as soon in the cottage as in the palace by her surroundings. Shabby gentility is one of the most objectionable forms of snobbishness. To affect a better income than you have, to ape the manners of your richer neighbors, proclaims you vulgar and ill-bred in the highest degree. Shams of every description are contemptible, and every young housekeeper should build her house upon a superstructure of sincerity, and then she will never have to blush at awkward discoveries.

Your house may have the appearance of refinement without any great expense if good taste be exercised in its arrangement. The rooms must be furnished with an artistic eye for colors, and a careful eye for comfort. Whatever pictures or works of art there are should be good. One good engraving is better than half a dozen cheap chromos.

A house without books is a house without a soul. Be sure, therefore, to have plenty of books around. You may not be able to have a whole library, but you can at least collect a few shelves of well-chosen works.

Thorns and ferns are ornamental and tasteful, and may be obtained at a very slight expenditure; all that they require is a little care and thought in their cultivation and arrangement.

Be careful not to overload your rooms with cheap knick-knacks and gaudy tidies of crochet or knitted work. Any one having a taste for the higher style of embroidery, such as the Kensington and Arrasene work, may produce very artistic effects, at but slight expense.

The walls of your rooms are a very important subject, and as you cannot expect to change the papering thereof with every fluctuation of fashion, it is essential that you exercise good taste at the outset, paying but little attention to the prevailing style.

The walls of a room should always be of some sober color. Your carpets may be bright as you please, but the pattern must be small, and the colors well blended. Set figures are very wearisome to the eye, either in a carpet or on wall-paper, and as both are likely to be worn a long time, it is best to look out for that at the beginning.

In this day of artistic furniture, art magazines, and art crazes generally, there need be no excuse for bad taste in furnishing. The day of one stiff sofa, six stiff chairs, and one straight table, all placed rigidly against the wall, and forming right angles with it, is over, the gods be thanked; and a person, be he ever so uncultured, can form some conception of what is suitable and beautiful in the house to make it a home.

Plenty of fresh air, cleanliness and quiet, are all indications of a well-ordered home.

The servant question is the most difficult one that housekeepers have to contend with in America. The independent spirit of our republic is inimical to anything that looks like servitude; hence our young women of the poorer classes would much rather go into factories, or bend over sewing-machines, than go into pleasant, cultivated families, where the varied labor, better fare and purer atmosphere would contribute immeasurably to the preservation of their health and happiness.

American ladies are largely dependent, therefore, upon the poor emigrant population of Germany and Ireland for their servants, and this will account for the main part of the difficulties in housekeeping here. It would be task enough to instruct a native-born girl in the varied mysteries of dusting and dish-washing, of waiting on the table and answering the door-bell; but when it comes to wrestling with the vernacular of the Fatherland as well, it is discouraging in the highest degree.

The best way, however, is to offer good wages, take only such a girl as is well recommended, and then, by firm, patient and just measures, endeavor to have her do your work in your own way, and to your perfect satisfaction.

Here, as elsewhere, the mistress must ever be on the alert. She must be quick to observe any neglect of orders and carelessness in the execution of them. She must remind repeatedly, but always kindly and firmly. Let your servant see that you *will* be obeyed, but *never* let her see you out of temper, and you will soon acquire such an ascendancy over her that everything will go as smoothly when you are absent as when you are present. If you will keep a good servant, you must treat her properly. A good mistress will give as much attention to the comfort and happiness of her servants as she will to that of her husband and her children.

If she have but one servant, she must be careful not to put too much work upon her. No one is willing to drudge all the time, nor should any one ask it. If there are several servants, their duties must be distinctly understood and rigidly enforced. One must not be expected to help another out, as that would be injustice to the industrious one.

The mistress must give personal supervision if she would have her work well done. Only after a long and tried period of service can she afford to relax her vigilance. A good house-mistress will never be afraid of a little trouble. The constant care pays in the end.

Avoid a fault-finding and scolding manner. When a thing does not suit you, say so quietly to your servant. A display of temper only loses you the respect of your servant, and gains you nothing in the way of obedience.

Servants should be treated as though they were human beings, with human weaknesses, and not as if they were mere working machines. You should endeavor to correct their faults, not to aggravate them; and you should treat them, and have your children treat them, with invariable kindness and civility.

You should interest yourself in the amusements of your servants. If they have a taste for reading, provide them with good books. See that they occasionally have an opportunity to attend a place of amusement. Do not restrict their hours of amusement, or endeavor to curtail their personal liberty. A good, devoted servant is, particularly in this country, where the sense of equality is felt and tacitly admitted, as much a part of the family as any member thereof. She is the trusted confidante in family troubles; she is the recipient of all the joyful secrets of the various members of the family; she is, in short, more friend than servant, without presumption on the one hand or undignified condescension on the other.

Punctuality is one of the chief requirements of a well-ordered household. The good temper and consequent comfort of the whole family depend upon the regularity of the meals, to say nothing of the health, which is almost as largely dependent upon the meal being served on time as upon the quality of the food. The breakfast and dinner bell should be as punctual as the church bell.

The mistress must look well to the quality and preparation of the food. Badly cooked food, monotonous food or insufficient food are all injurious to the health, and no lady should let other and more agreeable occupations engage her attention until she has attended to her marketing, ordered her meals, and made sure of their being properly prepared and neatly served.

Unless she have a dining-room maid, upon whom she can thoroughly depend, it is better for the lady of the house to go into her dining-room a few moments before meals are served, to see that all is in order, the table properly arranged, etc. There are very few servants in this country well trained enough to be depended upon without close supervision.

A good housekeeper will also attend carefully to her daily accounts. Entries of expenditures should be made every day, and the amount cast up at the end of the week. If a book is kept with the butcher and the grocer, it is always best to have a weekly settlement. A monthly or a quarterly settlement may of course be made, but the shorter time accounts are allowed to run, the easier it is to untangle any little knot in the skein. It is best for the mistress to do all her own ordering for the domestic commissariat than to depute any part of the task to her cook. Where servants are allowed to run and order this or that article, there is always trouble with the tradesmen when the monthly bill comes in.

While every woman should do all in her power to enlarge her views, cultivate her mind, and improve her social position, she should bear in mind that "home" is first and forever her special heritage, and that to embellish and beautify it, and to so order it that it shall be a haven of rest to her dear ones, is her highest and noblest duty, to which everything else should be subservient.

The Art of Carving.

THE importance of the art of carving has been referred to under the head of Dining, and we propose here to give a few rules upon the practice which may be of benefit to the tyro, and help him to acquire that ease and dexterity in carving which is so conducive to peace and comfort around the family board.

In carving a sirloin of beef, the upper cuts should be made lengthwise of the beef, while the under cuts are crosswise—the under cuts being also much thicker than the upper cuts. As there is much difference of opinion as to which is the choice piece, it is best for the carver to ask his guests which cut they prefer.

Rib roasts, rolled, and a round of beef are always cut in very thin horizontal slices across the whole surface of the meat. It is essential, though, that these slices be quite thin.

The leg, the loin, the shoulder and the saddle are the four pieces of mutton usually brought to the table to be carved. First, as to the leg. This must be placed on the table with the knuckle toward the left hand. Then cut into the side farthest from you toward the bone, helping thin slices from the right and thick slices toward the knuckle. Always divide the little bunch of fat near the thick end among your guests, as it is a great delicacy.

A saddle of mutton is often ordered for a small dinner party. It is cut in very thin slices, close to the back-bone, and then downward.

Place a "shoulder" with the knuckle toward the right hand, the blade bone toward the left. Place your fork firmly in the middle of the edge farthest from you, and cut dexterously from the edge to the bone. This causes the meat to fly open, when you can cut slices on each side of the opening, until there is no more to cut, when the meat should be turned over and slices cut from the under side. Another method of carving this joint is to cut slices lengthwise from the end to the knuckle.

The loin of mutton, which is a piece intended specially for family use, should be carved either through the joints or may be cut lengthwise in a parallel line with the joints.

A fillet of veal is, in shape and appearance, very similar to a round of beef, and is carved in the same way by cutting horizontal slices over the whole surface of the meat. The slices, however, should not be nearly so thin as beef. A fillet of veal is cut from the leg, the bone is removed by the butcher, and the pocket thus made is filled with dressing, which is taken out and helped with a spoon by the carver.

A breast of veal may be either roasted or stewed. If used as a roasting-piece, you will have the butcher make an opening or hole in it for the reception of the dressing. In carving it, the ribs may be separated from the brisket, and sent round.

A fore-quarter of lamb consists of shoulder, breast and ribs. The knife must be first placed upon the shoulder, drawn through horizontally, and the joint removed, and placed upon another dish. The ribs can then be separated, and the breast sliced and sent around.

A calf's head, which is by some considered a delicacy, must be cut down the centre in thin slices on each side. A small piece of the palate, of the sweet-bread, and of the meat around the eye, must be put on each plate and sent round.

In carving a haunch of venison, make a cut across close to knuckle, after which cut slices by making straight incisions lengthwise.

There are three methods allowed in carving a ham. The most common one probably is to cut it like a leg of mutton, beginning in the middle, and cutting either way. You may, however, begin at the knuckle, cutting slices in a slanting direction, or you may begin at the thick end. The slices must always be as thin and delicate as possible, and are the usual accompaniment to fowl or veal.

Tongue must always be cut in thin, regular slices. Make the first cut a short distance from the tip, where a slice of some size may be attained. The tip is considered quite a tid-bit by some people.

In carving a chicken, first cut off the wings. This is easily done by learning where to strike the joint. Then slice the breast, and cut off the merry-thought and side bones. The breast should always be helped first, then the wings—the liver wing being the better of the two. It is better to always reserve a small slice of the white meat to be served with the dark.

Pigeon, snipe and quail are cut in half, and a piece sent to each guest. When the birds are small, you send a whole one.

Goose and turkey are helped by cutting slices off the breast, and then the wings and legs are removed. The breast is considered the best meat, and after that the wings.

Boiled rabbit is carved thus: First cut off the legs, then take out the shoulders with a sharp-pointed knife, then break the back into three or four pieces at the joint. The back is the choice help, especially the piece in the centre. The shoulder is next in order after the back, and the leg comes last. The kidney is a delicate bit.

For cutting fish a regular silver fish-slice is provided. Salmon and all fish of that order are cut in slices down the middle of the upper side, and then in slices across on the under side. A piece of each should be helped to all.

Mackerel divides among four people. Pass fish-knife between the upper and under half from head to tail, then halve each side, and help to a quarter.

Cut cod crosswise like salmon, then downward, and send a small piece of round on each plate as well.

Large flat fish, as turbot, flounders, John Dorey, etc., are first cut down the middle from head to tail, then across to the fin, in slices. The fin, being considered a delicacy by some, should be helped, too.

Small fish, like smelts, whiting, etc., are sent whole to each guest.

How to Select Meats.

THE ART OF COOKING

SCARCELY a young housekeeper, unless so fortunate as to have had a thorough course of training by a sensible mother, but has been mortified at her own extreme ignorance of what before seemed unimportant matters, but afterward proved themselves very essential points in the way of doing the household marketing. The difference in kind and quality, and the technical names of the various parts of edible animals, probably never occurred to her until brought face to face with the matter in the butcher shop, which she has entered for the first time to purchase her meat for dinner.

For the benefit of such we give a few general rules upon how to select meats, the names of the different parts, appearance of good and bad meats, etc. First, as to the characteristics of good meats. Meat of a pale pink color is likely to be diseased, while that of a deep purple tint has not been slaughtered, but has died of acute fever. The proper color is a bright, rich red.

It should be firm and elastic in appearance, and scarcely moisten the fingers. Bad meat is wet and sodden, while the fat in it looks like jelly.

Good meat has little or no odor, and is not disagreeable. Bad meat has a sickly odor that is extremely offensive.

Good meat should not shrink much in cooking.

It should not become very wet on standing. It should dry upon the surface.

Meat should be dried with a clean cloth as soon as it comes from the butcher's. Cut out fly-blows if there are any on it.

Never buy *bruised* joints.

Meat will keep a long time in cold weather, while if frozen it will keep for months. Always thaw frozen meat before attempting to cook it, by plunging it in cold water or setting it before the fire. It will not cook well without this precaution.

In summer place your meat on ice, or in the coldest place you have, until ready to cook it.

Always baste roast meat with its own drippings. You cannot baste it too much.

In order to retain the juices, your meat must be cooked in a hot oven.

In boiling meat, if you wish to make soup as well, put your meat in cold water, and bring it slowly up to the boiling point. The juices then flavor the water and make soup. If you put the meat in boiling water, the juices remain in the meat, and the liquor is worthless.

Stewing is slow boiling. Frying is cooking in a pan, in a small quantity of fat. Broiling is cooking over a fire.

Beef is the flesh of the ox, and is the principal meat eaten in this country and in England. Good beef should be well streaked or marbled with fat, and should have plenty of loose fat or suet around.

The joints of beef for roasting are ribs, sirloin, chump of rump, fillet of sirloin, mouse buttock, top side and heart. The choice roasts are sirloin and rib roasts. For a small family a nice roast is made of one rib, the bone being taken out, and the meat neatly rolled and skewered by the butcher.

For frying or broiling the best steak is the "porterhouse." After that "tenderloin" and "sirloin" steak, and the "rump" steak. The latter should be well beaten, as it has a tendency to toughness. The choicest thing for breakfast is a "porterhouse" steak, broiled quickly over a bright fire.

For beefsteak puddings and pies coarser pieces of the meat may be purchased. For soup, a good shin-bone is best.

Beef is more nourishing roasted than boiled, and can be eaten more frequently than any other meat without causing surfeit.

Veal has but little fat, and is of a pinkish white color. Good veal should be closely grained and small; if it is large and coarse-grained, it is too old to be really nice. Do not buy it if it is moist and clammy, as it is then nearing decomposition. The best pieces of veal for roasting are fillet and best end of the breast. For frying, cutlets from the shoulder.

Spring lamb is one of the most delicate kinds of meat that can be eaten. The whole animal is usually divided into quarters by the butcher, and sold at so much a quarter. A hind quarter is usually rather more expensive than a fore quarter, although the latter is considered by some the more delicate eating. It is always rather an expensive meat, but a roast of lamb, with mint sauce, is always a delicate dinner.

Mutton is the meat of sheep upward of four years of age. The darker mutton is the better, as it is a sign of maturity. Good mutton should also be fat.

The parts for roasting are saddle, haunch, leg, best end of loin, chump end of loin, shoulder, breast and others.

For frying and broiling, chops and cutlets from loin and neck; also cutlets from leg.

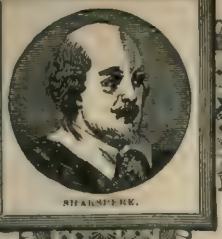
For boiling the leg makes an excellent dinner. It should always be accompanied by caper sauce.

Venison should be fat. A young deer may be distinguished by the cleft of the haunch being smooth and close. Winter is the season for buck venison, while summer is the time for doe venison. The roasting parts are haunch, neck and breast.

In choosing poultry, it is usual to try the breast bone in order to determine whether the fowl be young or old. If the bone be pliable—that is, easily bent with the finger—the chicken or turkey is young and tender enough for roasting; but if hard and unyielding, the fowl had better be boiled, and plenty of time allowed for the process.

The principal kinds of game eaten are grouse, partridge, snipes, quails, woodcocks, ortolans, pheasants, wild duck, teal, land-rail, plovers and larks.


Poetry.
Poetry is the consolation of mortal men. They live cabined, cribbed, confined in a narrow and trivial lot—in wants, pains, anxieties and superstitions, in profligate politics, in personal animosities, in mean employments—and victims of these; and the nobler powers remain untried, unknown. A poet comes who lifts the veil, gives them glimpses of the laws of the universe; shows them the circumstance as illusion; shows that nature is only a language, to express the laws, which are grand and beautiful, and lets them, by his songs, into some of the realities.
—R. W. EMERSON.



SHAKSPEARE.

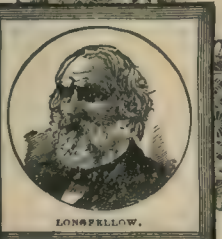


MILTON.

FAMILIAR POEMS

AND

THOSE WHO WROTE THEM



LONGFELLOW.



BRYANT.

Thanatopsis.



WILLIAM CULLEN BRYANT.

TO him who, in the love of nature, holds
Communion with her visible forms, she speaks
A various language; for his gayer hours
She has a voice of gladness, and a smile
And eloquence of beauty, and she glides
Into his darker musings, with a mild
And gentle sympathy, that steals away
Their sharpness, ere he is aware.

When thoughts
Of the last bitter hour come like a blight
Over thy spirit, and sad images
Of the stern agony, and shroud, and pall,
And breathless darkness, and the narrow house,
Make thee to shudder and grow sick at heart;
Go forth into the open sky, and list
To nature's teaching, while from all around
Comes a still voice:

"Yet a few days, and thee
The all-beholding sun shall see no more,
In all his course; nor yet, in the cold ground,
Where thy pale form was laid with many tears,
Nor in the embrace of ocean, shall exist
Thy image. Earth, that nourishes thee, shall claim
Thy growth, to be resolved to earth again;
And, lost each human trace, surrendering up
Thine individual being, shalt thou go
To mix forever with the elements,
To be a brother to th' insensible rock
And to the sluggish clod, which the rude swain
Turns with his share and treads upon.

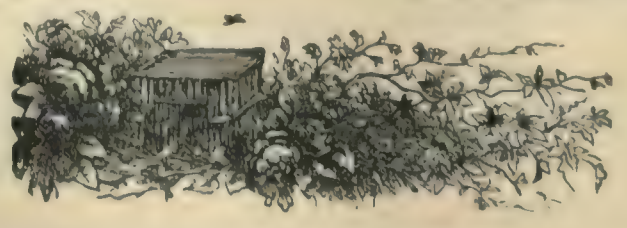
The oak
Shall send its roots abroad, and pierce thy mold.
Yet not to thy eternal resting-place
Shalt thou retire alone, nor couldst thou wish
Couch more magnificent. Thou shalt lie down
With patriarchs of the infant world, with kings,
The powerful of the earth, the wise, the good,
Fair forms, and hoary seers of ages past,
All in one mighty sepulchre.

The hills,
Rock-ribbed and ancient as the sun; the vales,
Stretching in pensive quietness between;
The venerable woods; rivers that move
In majesty, and the complaining brooks
That make the meadows green; and, poured round all,
Old ocean's gray and melancholy waste,
Are but the solemn decorations all
Of the great tomb of man. The golden sun,
The planets, all the infinite host of heaven,
Are shining on the sad abodes of death,
Through the still lapse of ages.

All that thread
The globe are but a handful to the tribes
That slumber in its bosom. Take the wings
Of morning, and the Barcan desert pierce,
Or lose thyself in the continuous woods
Where rolls the Oregon, and hears no sound
Save its own dashings — yet — the dead are there;
And millions in those solitudes, since first
The flight of years began, have laid them down
In their last sleep: the dead reign there alone.

So shalt *thou* rest; and what if thou shalt fall
Unnoticed by the living, and no friend
Take note of thy departure? All that breathe
Will share thy destiny. The gay will laugh
When thou art gone; the solemn brood of care
Plod on; and each one, as before, will chase
His favorite phantom; yet all these shall leave
Their mirth and their enjoyments, and shall come
And make their bed with thee. As the long train
Of ages glide away, the sons of men,
The youth in life's green spring, and he who goes
In the full strength of years, matron and maid,
The bowed with age, the infant in the smiles
And beauty of its innocent age cut off —
Shall, one by one, be gathered to thy side,
By those who in their turn shall follow them.

So live, that when thy summons comes to join
The innumerable caravan that moves
To the pale realms of shade, where each shall take
His chamber in the silent halls of death,
Thou go not like the quarry-slave at night,
Scourged to his dungeon, but, sustained and soothed,
By an unfaltering trust, approach thy grave
Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams.



Hiawatha's Wooing.



HENRY WADSWORTH LONGFELLOW.

"AS unto the bow the cord is,
So unto the man is woman:
Though she bends him, she obeys him;
Though she draws him, yet she follows;
Useless each without the other."

Thus the youthful Hiawatha
Said within himself and pondered,
Much perplexed by various feelings,
Listless, longing, hoping, fearing,
Dreaming still of Minnehaha,
Of the lovely Laughing Water,
In the land of the Dacotahs.

"Wed a maiden of your people,"
Warning said the old Nokomis;
"Go not eastward, go not westward,
For a stranger, whom ye know not!
Like a fire upon the hearthstone
Is a neighbor's homely daughter;
Like the starlight or the moonlight
Is the handsomest of strangers!"

Thus dissuading spake Nokomis,
And my Hiawatha answered
Only this: "Dear old Nokomis,
Very pleasant is the firelight,
But I like the starlight better,
Better do I like the moonlight!"

Gravely then said old Nokomis:
"Bring not here an idle maiden,
Bring not here a useless woman,
Hands unskilful, feet unwilling;
Bring a wife with nimble fingers,
Heart and hand that move together,
Feet that run on willing errands!"

Smiling answered Hiawatha:
"In the land of the Dacotahs
Lives the Arrow-maker's daughter,
Minnehaha, Laughing Water,
Handsomest of all the women.
I will bring her to your wigwam,
She shall run upon your errands,
Be your starlight, moonlight, firelight,
Be the sunlight of my people!"

Still dissuading said Nokomis:
"Bring not to my lodge a stranger
From the land of the Dacotahs!
Very fierce are the Dacotahs,
Often is there war between us,
There are feuds yet unforgotten,
Wounds that ache and still may open!"

Laughing answered Hiawatha:
"For that reason, if no other,
Would I wed the fair Dacotah,
That our tribes might be united,
That old feuds might be forgotten,
And old wounds be healed forever!"

Thus departed Hiawatha
To the land of the Dacotahs,
To the land of handsome women;
Striding over moor and meadow
Through interminable forests,
Through uninterrupted silence.

With his moccasins of magic,
At each stride a mile he measured;
Yet the way seemed long before him,
And his heart outran his footsteps;
And he journeyed without resting,
Till he heard the cataract's laughter,
Heard the Falls of Minnehaha
Calling to him through the silence.
"Pleasant is the sound!" he murmured,
"Pleasant is the voice that calls me!"

On the outskirts of the forest,
'Twixt the shadow and the sunshine,
Herds of fallow deer were feeding,
But they saw not Hiawatha;
To his bow he whispered, "Fail not!"
To his arrow whispered, "Swerve not!"
Sent it singing on its errand,
To the red heart of the roebuck;
Threw the deer across his shoulder,
And sped forward without pausing.

At the doorway of his wigwam
Sat the ancient Arrow-maker,
In the land of the Dacotahs,
Making arrow-heads of jasper,
Arrow-heads of chalcedony.
At his side, in all her beauty,
Sat the lovely Minnehaha,
Sat his daughter, Laughing Water,
Plaiting mats of flags and rushes;
Of the past the old man's thoughts were,
And the maiden's of the future.

He was thinking, as he sat there,
Of the days when with such arrows
He had struck the deer and bison,
On the Muskoday, the meadow;
Shot the wild goose, flying southward,
On the wing, the clamorous Wawa;
Thinking of the great war-parties,
How they came to buy his arrows,
Could not fight without his arrows.
Ah, no more such noble warriors
Could be found on earth as they were!
Now the men were all like women,
Only used their tongues for weapons!

She was thinking of a hunter
From another tribe and country,
Young and tall and very handsome,
Who one morning, in the spring-time,
Came to buy her father's arrows,
Sat and rested in the wigwam,
Lingered long about the doorway,
Looking back as he departed.
She had heard her father praise him,
Praise his courage and his wisdom;
Would he come again for arrows
To the Falls of Minnehaha?
On the mat her hands lay idle,
And her eyes were very dreamy.

Through their thoughts they heard a footstep,
Heard a rustling in the branches,
And with glowing cheek and forehead,
With the deer upon his shoulders,
Suddenly from out the woodlands
Hiawatha stood before them.

Straight the ancient arrow-maker
Looked up gravely from his labor,
Laid aside the unfinished arrow,
Bade him enter at the doorway,
Saying, as he rose to meet him,
"Hiawatha, you are welcome!"

At the feet of Laughing Water
Hiawatha laid his burden,
Threw the red deer from his shoulders;
And the maiden looked up at him,
Looked up from her mat of rushes,
Said with gentle look and accent,
"You are welcome, Hiawatha!"

Very spacious was the wigwam,
Made of deer-skin dressed and whitened,
With the gods of the Dacotahs
Drawn and painted on its curtains,
And so tall the doorway, hardly
Hiawatha stooped to enter,
Hardly touched his eagle-feathers
As he entered at the doorway.

Then uprose the Laughing Water,
From the ground fair Minnehaha,
Laid aside her mat unfinished,
Brought forth food and set before them,
Water brought them from the brooklet,
Gave them food in earthen vessels,
Gave them drink in bowls of basswood,
Listened while the guest was speaking,
Listened while her father answered,
But not once her lips she opened,
Not a single word she uttered.

Yes, as in a dream she listened
To the words of Hiawatha,
As he talked of old Nokomis,
Who had nursed him in his childhood,
As he told of his companions,
Chibiabos, the musician,
And the very strong man, Kwasind,
And of happiness and plenty
In the land of the Ojibways,
In the pleasant land and peaceful.

"After many years of warfare,
Many years of strife and bloodshed,
There is peace between the Ojibways
And the tribe of the Dacotahs;"
Thus continued Hiawatha,
And then added, speaking slowly,
"That this peace may last forever,
And our hands be clasped more closely,
And our hearts be more united,
Give me as my wife this maiden,
Minnehaha, Laughing Water,
Loveliest of Dacotah women!"

And the ancient Arrow-maker
Paused a moment ere he answered,
Smoked a little while in silence,
Looked at Hiawatha proudly,
Fondly looked at Laughing Water,
And made answer very gravely:
"Yes, if Minnehaha wishes;
Let your heart speak, Minnehaha!"

And the lovely Laughing Water
Seemed more lovely, as she stood there,
Neither willing nor reluctant,
As she went to Hiawatha,
Softly took the seat beside him,
While she said, and blushed to say it,
"I will follow you, my husband!"

This was Hiawatha's wooing!
Thus it was he won the daughter
Of the ancient Arrow-maker,
In the land of the Dacotahs!

From the wigwam he departed,
Leading with him Laughing Water;
Hand in hand they went together,
Through the woodland and the meadow,
Left the old man standing lonely
At the doorway of his wigwam,
Heard the Falls of Minnehaha
Calling to them from the distance,
Crying to them from afar off,
"Fare thee well, O Minnehaha!"

And the ancient Arrow-maker
Turned again unto his labor,
Sat down by his sunny doorway,
Murmuring to himself, and saying:
"Thus it is our daughters leave us,
Those we love, and those who love us!
Just when they have learned to help us,
When we are old and lean upon them,
Comes a youth with flaunting feathers,
With his flute of reeds, a stranger,
Wanders piping through the village,
Beckons to the fairest maiden,
And she follows where he leads her,
Leaving all things for the stranger!"

Pleasant was the journey homeward
Through interminable forests,
Over meadow, over mountain,
Over river, hill and hollow.
Short it seemed to Hiawatha,
Though they journeyed very slowly,
Though his pace he checked and slackened
To the steps of Laughing Water.

Over wide and rushing rivers
In his arms he bore the maiden;
Light he thought her as a feather,
As the plume upon his head-gear;
Cleared the tangled pathway for her,
Bent aside the swaying branches,
Made at night a lodge of branches,
And a bed with boughs of hemlock,
And a fire before the doorway
With the dry cones of the pine-tree.

All the travelling winds went with them
O'er the meadow, through the forest;
All the stars of night looked at them,
Watched with sleepless eyes their slumber;
From his ambush in the oak-tree
Peered the squirrel, Adjidaumo,
Watched with eager eyes the lovers,
And the rabbit, the Wabasso,
Scampered from the path before them,
Peeping, peeping from his burrow,
Sat erect upon his haunches,
Watched with curious eyes the lovers.

Pleasant was the journey homeward!
All the birds sang loud and sweetly
Songs of happiness and heart's-ease.
Sang the blue-bird, the Owaissa,
"Happy are you, Hiawatha,
Having such a wife to love you!"
Sang the robin, the Opechee,
"Happy are you, Laughing Water,
Having such a noble husband!"

From the sky the sun benignant
Looked upon them through the branches,
Saying to them, "O my children,
Love is sunshine, hate is shadow,
Life is checkered shade and sunshine,
Rule by love, O Hiawatha!"

From the sky the moon looked at them,
Filled the lodge with mystic splendors,
Whispered to them, "O my children,
Day is restless, night is quiet,
Man imperious, woman feeble;
Half is mine, although I follow;
Rule by patience, Laughing Water!"

Thus it was they journeyed homeward,
Thus it was that Hiawatha
To the lodge of old Nokomis
Brought the moonlight, starlight, firelight,
Brought the sunshine of his people,
Minnehaha, Laughing Water,
Handsomest of all the women
In the land of the Dacotahs,
In the land of handsome women.

The Barefoot Boy.

JOHN GREENLEAF WHITTIER.

BLESSINGS on thee, little man,
Barefoot boy, with cheeks of tan!
With thy turned-up pantaloons,
And thy merry whistled tunes;
With thy red lip, redder still,
Kissed by strawberries on the hill;
With the sunshine on thy face,
Through thy torn brim's jaunty grace,
From my heart I give thee joy—
I was once a barefoot boy!
Prince thou art—the grown-up man
Only is republican.
Let the million-dollared ride!
Barefoot, trudging at his side,
Thou hast more than he can buy
In the reach of ear and eye—
Outward sunshine, inward joy,
Blessings on thee, barefoot boy!

Oh, for boyhood's painless play,
Sleep that wakes in laughing day,
Health that mocks the doctor's rules,
Knowledge never learned of schools,
Of the wild bee's morning chase,
Of the wild flower's time and place,
Flight of fowl, and habitude
Of the tenants of the wood;
How the tortoise bears his shell,
How the woodchuck digs his cell,
And the ground mole sinks his well;
How the robin feeds her young,
How the oriole's nest is hung;
Where the whitest lilies blow,
Where the freshest berries grow,
Where the ground-nut trails its vine,
Where the wood-grape's clusters shine;
Of the black wasp's cunning way,
Mason of his walls of clay,
And the architectural plans
Of gray hornet artisans!—
For, eschewing books and tasks,
Nature answers all he asks;
Hand in hand with her he walks,
Face to face with her he talks,
Part and parcel of her joy—
Blessings on the barefoot boy!

Oh, for boyhood's time of June,
Crowding years in one brief moon,
When all things I heard or saw,
Me, their master, waited for.
I was rich in flowers and trees,
Humming-birds and honey-bees;
For my sport the squirrel played,
Plied the snouted mole his spade;

For my taste the blackberry cone
Purpled over hedge and stone;
Laughed the brook for my delight
Through the day and through the night,
Whispering at the garden wall,
Talked with me from fall to fall;
Mine the sand-rimmed pickerel pond,
Mine the walnut slopes beyond,
Mine on bending orchard trees,
Apples of Hesperides!
Still, as my horizon grew,
Larger grew my riches, too;
All the world I saw or knew
Seemed a complex Chinese toy,
Fashioned for a barefoot boy!

Oh, for festal dainties spread,
Like my bowl of milk and bread,—
Pewter spoon and bowl of wood,
On the door-stone, gray and rude!
O'er me, like a regal tent,
Cloudy-ribbed the sunset bent,
Purple-curtained, fringed with gold,
Looped in many a wind-swung fold,
While for music came the play
Of the pied frogs' orchestra;
And, to light the noisy choir,
Lit the fly his light of fire.
I was monarch; — pomp and joy
Waited on the barefoot boy!

Cheerily, then, my little man,
Live and laugh, as boyhood can!
Though the flinty slopes be hard,
Stubble-speared the new-mown sward,
Every morn shall lead thee through
Fresh baptisms of the dew;
Every evening from thy feet
Shall the cool wind kiss the heat;
All too soon these feet must hide
In the prison cells of pride,
Lose the freedom of the sod,
Like a colt's for work be shod,
Made to tread the mills of toil
Up and down in ceaseless moil:
Happy if their track be found
Never on forbidden ground;
Happy if they sink not in
Quick and treacherous sands of sin.
Ah! that thou couldst know thy joy,
Ere it passes, barefoot boy!



EDGAR ALLAN POE.

I.

HEAR the sledges with the bells—
Silver bells—
What a world of merriment their melody foretells!
How they tinkle, tinkle, tinkle,
In the icy air of night!
While the stars that oversprinkle
All the heavens seem to twinkle
With a crystalline delight—
Keeping time, time, time,
In a sort of Runic rhyme,
To the tintinnabulation that so musically wells
From the bells, bells, bells, bells,
Bells, bells, bells,
From the jingling and the tinkling of the bells.

II.

Hear the mellow wedding bells—
Golden bells!
What a world of happiness their harmony foretells!
Through the balmy air of night
How they ring out their delight!
From the molten-golden notes,
And all in tune,
What a liquid ditty floats
To the turtle-dove that listens, while she gloats
On the moon!
Oh, from out the sounding cells,
What a gush of euphony voluminously wells!
How it swells!
How it dwells
On the Future! how it tells
Of the rapture that impels
To the swinging and the ringing
Of the bells, bells, bells,
Of the bells, bells, bells, bells,
Bells, bells, bells—
To the rhyming and the chiming of the bells.

III.

Hear the loud alarum bells—
Brazen bells!
What a tale of terror, now, their turbulency tells!
In the startled ear of night
How they scream out their affright!
Too much horrified to speak,
They can only shriek, shriek,
Out of tune,
In the clamorous appealing to the mercy of the fire,
In a mad expostulation with the deaf and frantic fire,
Leaping higher, higher, higher,
With a desperate desire,
And a resolute endeavor,
Now—now to sit or never,
By the side of the pale-faced moon.
Oh, the bells, bells, bells,
What a tale their terror tells
Of despair!
How they clang, and clash, and roar!
What a horror they outpour
On the bosom of the palpitating air!
Yet the ear it fully knows
By the twanging
And the clanging,
How the danger ebbs and flows;
Yet the ear distinctly tells,
In the jangling,
And the wrangling,
How the danger sinks and swells,
By the sinking or the swelling in the anger of the bells—
Of the bells—
Of the bells, bells, bells, bells,
Bells, bells, bells—
In the clamor and the clangor of the bells!

IV.

Hear the tolling of the bells—
Iron bells!
What a world of solemn thought their monody compels!
In the silence of the night,
How we shiver with affright
At the melancholy menace of their tone!
For every sound that floats
From the rust within their throats
Is a groan.
And the people—ah, the people—
They that dwell up in the steeple,
All alone,
And who tolling, tolling, tolling,
In that muffled monotone,
Feel a glory in so rolling
On the human heart a stone—
They are neither man nor woman—
They are neither brute nor human—
They are ghouls:
And their king it is who tolls;
And he rolls, rolls, rolls,
Rolls,
A pæan from the bells!
And his merry bosom swells
With the pæan of the bells!
And he dances and he yells;
Keeping time, time, time,
In a sort of Runic rhyme,
To the pæan of the bells—
Of the bells:
Keeping time, time, time,
In a sort of Runic rhyme,
To the throbbing of the bells—
Of the bells, bells, bells—
To the sobbing of the bells;
Keeping time, time, time,
As he knells, knells, knells,
In a happy Runic rhyme,
To the tolling of the bells—
Of the bells, bells, bells,
To the tolling of the bells,
Of the bells, bells, bells, bells—
Bells, bells, bells—
To the moaning and the groaning of the bells.

Blow, Blow, Thou Winter Wind.



SHAKSPERE.

From "As You Like It."—Act II, Sc. 7.

BLOW, blow, thou winter wind,
Thou art not so unkind
As man's ingratitude;
Thy tooth is not so keen
Because thou art not seen,
Although thy breath be rude.
Heigh-ho! sing heigh-ho! unto the green holly,
Most friendship is feigning, most loving mere folly.
Then heigh-ho the holly,
This life is most jolly.

Freeze, freeze, thou bitter sky,
Thou dost not bite so nigh
As benefits forgot;
Though thou the waters warp,
Thy sting is not so sharp
As friend remembered not.
Heigh-ho! sing heigh-ho! unto the green holly,
Most friendship is feigning, most loving mere folly:
Then heigh-ho the holly,
This life is most jolly.

Bugle Song.

ALFRED TENNYSON.



THE splendor falls on castle walls
And snowy summits old in story;
The long light shakes across the lakes,
And the wild cataract leaps in glory.
Blow, bugle, blow, set the wild echoes flying;
Blow, bugle; answer, echoes, dying, dying, dying!

O love, they die in yon rich sky,
They faint on hill or field or river;
Our echoes roll from soul to soul,
And grow forever and forever.
Blow, bugle, blow, set the wild echoes flying,
And answer echoes, answer, dying, dying, dying!

Oh, hark! oh, hear! how thin and clear,
And thinner, clearer, farther going,
Oh, sweet and far from cliff and scar,
The horns of Elfland faintly blowing!
Blow, let us hear the purple glens replying,
Blow, bugle; answer, echoes, dying dying, dying!

The Sea.



BARRY CORNWALL.

THE sea! the sea! the open sea,
The blue, the fresh, the ever free!
Without a mark, without a bound,
It runneth the earth's wide regions round,
It plays wth the clouds; it mocks the skies;
Or like a cradled creature lies.

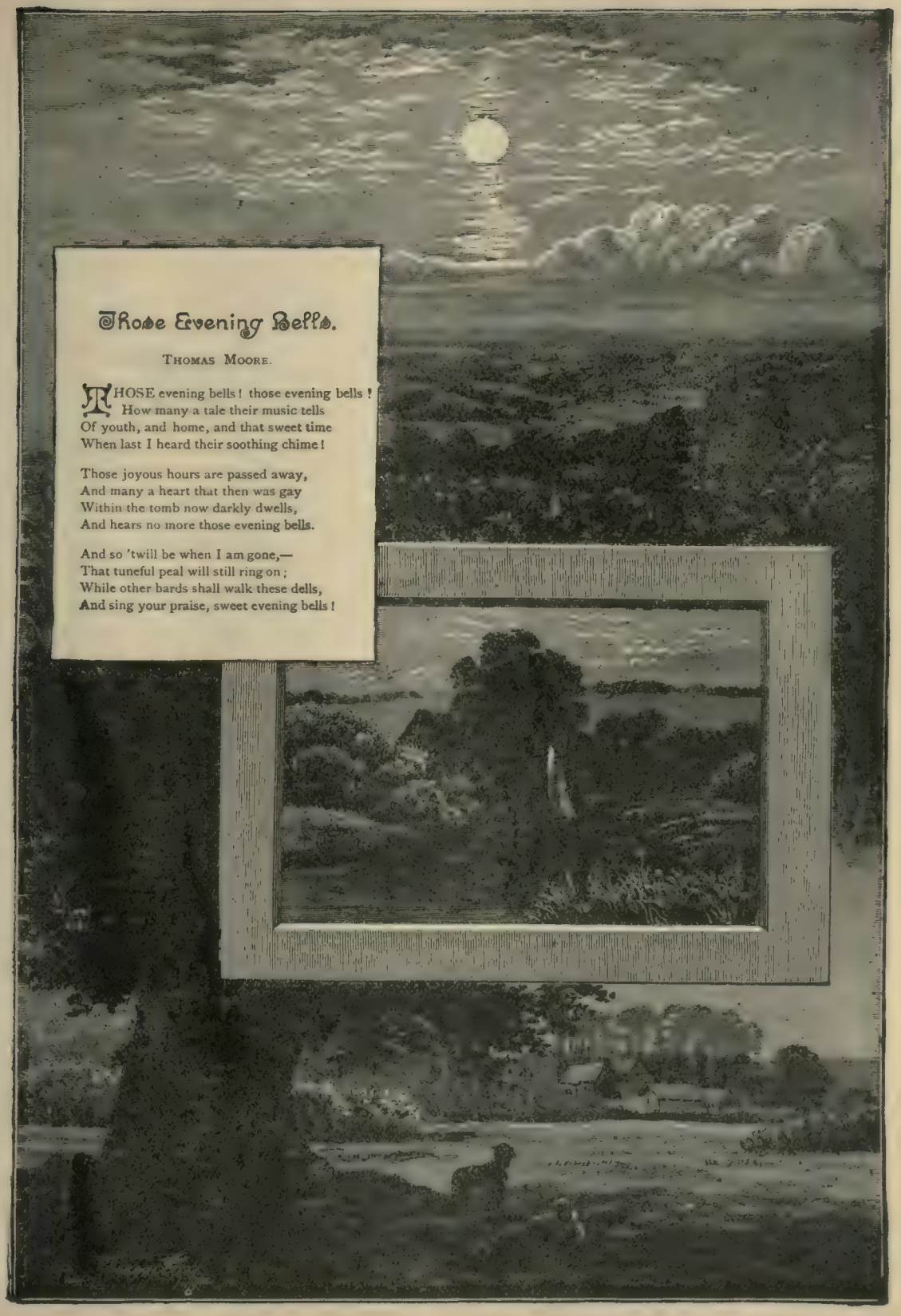
I'm on the sea! I'm on the sea!
I am where I would ever be;
With the blue above, and the blue below,
And silence wheresoe'er I go;
If a storm should come and awake the deep,
What matter? I shall ride and sleep.

I love (oh, *how* I love!) to ride
On the fierce, foaming, bursting tide,
When every mad wave drowns the moon,
Or whistles aloft his tempest tune,
And tells how goeth the world below,
And why the southwest blasts do blow.

I never was on the dull, tame shore
But I loved the great sea more and more,
And backward flew to her billowy breast,
Like a bird that seeketh its mother's nest;
And a mother she *was*, and *is* to me;
For I was born on the open sea.

The waves were white and red the morn,
In the noisy hour when I was born;
And the whale it whistled and the porpoise roll'd,
And the dolphins bared their backs of gold;
And never was heard such an outcry wild
As welcomed to life the ocean child.

I've lived since then, in calm and strife,
Full fifty summers a sailor's life,
With wealth to spend, and a power to range,
But never have sought nor sigh'd for change:
And Death, whenever he come to me,
Shall come on the wild, unbounded sea.



Those Evening Bells.

THOMAS MOORE.

THOSE evening bells! those evening bells!
How many a tale their music tells
Of youth, and home, and that sweet time
When last I heard their soothing chime!

Those joyous hours are passed away,
And many a heart that then was gay
Within the tomb now darkly dwells,
And hears no more those evening bells.

And so 'twill be when I am gone,—
That tuneful peal will still ring on;
While other bards shall walk these dells,
And sing your praise, sweet evening bells!

The Village Preacher.



OLIVER GOLDSMITH.

An Extract from "The Deserted Village."

SWEET was the sound, when oft, at evening's close,
Up yonder hill the village murmur rose;
There, as I passed with careless steps and slow,
The mingling notes came softened from below;
The swain responsive as the milk-maid sung,
The sober herd that lowed to meet their young;
The noisy geese that gabbled o'er the pool,
The playful children just let loose from school;
The watch-dog's voice that bayed the whispering wind,
And the loud laugh that spoke the vacant mind,—
These all in sweet confusion sought the shade,
And filled each pause the nightingale had made.

* * * * *

Near yonder copse, where once the garden smiled,
And still where many a garden flower grows wild,
There, where a few torn shrubs the place disclose,
The village preacher's modest mansion rose.
A man he was to all the country dear,
And passing rich, with forty pounds a year;
Remote from towns he ran his godly race,
Nor e'er had changed, or wished to change his place.
Unskilful he to fawn, or seek for power,
By doctrines fashioned to the varying hour;
Far other aims his heart had learned to prize,
More bent to raise the wretched than to rise.
His house was known to all the vagrant train,
He chid their wanderings, but relieved their pain;
The long-remembered beggar was his guest,
Whose beard, descending, swept his aged breast;
The ruined spendthrift, now no longer proud,
Claimed kindred there, and had his claims allowed;
The broken soldier, kindly bade to stay,
Sat by his fire, and talked the night away;
Wept o'er his wounds, or, tales of sorrow done,
Shouldered his crutch, and showed how fields were won.
Pleased with his guests, the good man learned to glow,
And quite forgot their vices in their woe;
Careless their merits or their faults to scan,
His pity gave ere charity began.
Thus to relieve the wretched was his pride,
And e'en his failings leaned to virtue's side,
But in his duty prompt at every call,
He watched and wept, he prayed and felt for all:
And as a bird each fond endearment tries,
To tempt its new-fledged offspring to the skies,
He tried each art, reproved each dull delay,
Allured to brighter worlds, and led the way.
Beside the bed where parting life was laid,
And sorrow, guilt and pain by turns dismayed,
The reverend champion stood. At his control
Despair and anguish fled the struggling soul:
Comfort came down, the trembling wretch to raise,
And his last faltering accents whispered praise.
At church, with meek and unaffected grace,
His looks adorned the venerable place:
Truth from his lips prevailed with double sway,
And fools, who came to scoff, remained to pray
The service past, around the pious man,
With steady zeal, each honest rustic ran;
E'en children followed, with endearing wile,
And plucked his gown, to share the good man's smile.
His ready smile a parent's warmth expressed,
Their welfare pleased him, and their cares distressed;
To them his heart, his love, his griefs were given,
But all his serious thoughts had rest in heaven:
As some tall cliff, that lifts its awful form,
Swells from the vale, and midway leaves the storm;
Though round its breast the rolling clouds are spread,
Eternal sunshine settles on its head.

The Ivy Green.

CHARLES DICKENS.



OH! a dainty plant is the ivy green,
That creepeth o'er ruins old!
Of right choice food are his meals, I ween,
In his cell so lone and cold.
The wall must be crumbled, the stones decayed,
To pleasure his dainty whim;
And the mouldering dust that years have made
Is a merry meal for him.
Creeping where no life is seen,
A rare old plant is the ivy green.

Fast he stealeth on, though he wears no wings,
And a staunch old heart has he.
How closely he twineth, how tight he clings,
To his friend, the huge oak tree!
And slyly he traileth along the ground,
And his leaves he gently waves
As he joyously hugs and crawleth round
The rich mould of dead men's graves.
Creeping where grim death has been,
A rare old plant is the ivy green.

Whole ages have fled, and their works decayed,
And nations have scattered been;
But the stout old ivy shall never fade
From its hale and hearty green.
The brave old plant in its lonely days
Shall fatten upon the past:
For the stateliest building man can raise
Is the ivy's food at last.



From Home to Home.

From "Harper's Weekly."

WHEN swallows were building in early spring
And the roses were red in June;
When the great white lilies were fair and sweet,
In the heat of the August noon;
When the winds were blowing the yellow wheat,
And the song of the harvest nigh,
And the beautiful world lay calm and sweet,
In the joy of a cloudless sky—

Then the swallows were full of glad content
In the hope of their northern nest;
Were sure that the land they were tarrying in
Of all other lands was the best.
And if they had heard in those blissful days
The voice they must heed say "Go,"
They had left their nests with a keen regret,
And their flight had been sad and slow.

But when summer was gone and flowers were dead,
And the brown leaves fell with a sigh,
And they watched the sun setting every day,
Further on in the northern sky,
Then the voice was sweet when it bid them "Go,"
They were eager for southward flight,
And they beat their wings to a new-born hope
When they went at the morning light.

If the way was long, yet the way was glad,
And they brighter and brighter grew,
And they dipped their wings in the glowing heat,
And they still to the southward flew,
Till they found the land of the summer sun,
The land where the nightingale sings,
And joyfully rested 'mid rose and song
Their beautiful weary wings.

Like swallows we wander from home to home—
We are birds of passage at best—
In many a spot we have dwelt awhile,
We have built us many a nest.
But the heart of the Father will touch our hearts,
He will speak to us soft and low,
We shall follow the Voice to the better land,
And its bliss and its beauty know.

Battle of the Angels.

JOHN MILTON.

From "Paradise Lost," Book VI.

MICHAEL bid sound the archangel trumpet;
Through the vast of heaven
It sounded, and the faithful armies rung
Hosanna to the Highest: nor stood at gaze
The adverse legions, nor less hideous joined
The horrid shock. Now storming fury rose,
And clamor, such as heard in heaven till now
Was never; arms on armor clashing brayed
Horrible discord, and the madding wheels
Of brazen chariots raged; dire was the noise
Of conflict; overhead the dismal hiss
Of fiery darts in flaming volleys flew,
And flying vaulted either host with fire.
So under fiery cope together rushed
Both battles main, with ruinous assault
And inextinguishable rage. All heaven
Resounded; and had earth been then, all earth
Had to her centre shook.

* * * * * *

Deeds of eternal fame
Were done, but infinite: for wide was spread
That war, and various: sometimes on firm ground
A standing fight, then, soaring on main wing,
Tormented all the air; all air seemed then
Conflicting fire

* * * * * *

Forthwith (behold the excellence, the power
Which God hath in his mighty angels placed)
Their arms away they threw, and to the hills
(For earth hath this variety from heaven
Of pleasure situate in hill and dale),
Light as the lightning glimpse they ran, they flew
From their foundations loosening to and fro,
They plucked the seated hills, with all their load,
Rocks, waters, woods, and by their shaggy tops
Uplifting bore them in their hands; amaze,
Be sure, and terror, seized the rebel host,
When coming towards them so dread they saw
The bottom of the mountains upward turned,

* * * * and on their heads
Main promontories flung, which in the air
Came shadowing, and oppressed whole legions armed;
Their armor helped their harm, crushed in and bruised
Into their substance pent, which wrought them pain
Implacable, and many a dolorous groan;
Long struggling underneath, ere they could wind
Out of such prison, though spirits of purest light,
Purest at first, now gross by sinning grown.
The rest, in imitation, to like arms
Betook them, and the neighboring hills uptore:
So hills amid the air encountered hills,
Hurled to and fro with jaculation dire,
That underground they fought in dismal shade,
Infernal noise! war seemed a civil game
To this uproar; horrid confusion heaped
Upon confusion rose.



Farewell to His Wife.



LORD BYRON.

FARE thee well, and if forever,
Still forever, fare thee well;
E'en though unforgiving, never
'Gainst thee shall my heart rebel.

Would that breast were bared before thee
Where thy head so oft hath lain,
While that placid sleep came o'er thee
Which thou ne'er canst know again:

Would that breast, by thee glanced over,
Every inmost thought could show!
Then thou wouldst at last discover
'Twas not well to spurn it so.

Though the world for this commend thee—
Though it smile upon the blow,
E'en its praises must offend thee,
Founded on another's woe.

Though my many faults defaced me,
Could no other arm be found
Than the one which once embraced me
To inflict a cureless wound?

Yet, oh, yet thyself deceive not:
Love may sink by slow decay;
But by sudden wrench, believe not
Hearts can thus be torn away:

Still thine own its life retaineth—
Still must mine, though bleeding, beat,
And the undying thought which paineth
Is—that we no more may meet.

These are words of deeper sorrow
Than the wail above the dead;
Both shall live, but every morrow
Wakes us from a widowed bed.

And when thou wouldst solace gather
When our child's first accents flow,
Wilt thou teach her to say "Father!"
Though his care she must forego?

When her little hands shall press thee,
When her lip to thine is pressed,
Think of him whose love shall bless thee,
Think of him thy love had blessed.

Should her lineaments resemble
Those thou nevermore mayst see,
Then thy heart will softly tremble
With a pulse yet true to me.

All my faults perchance thou knowest,
All my madness none can know;
All my hopes where'er thou goest,
Whither, yet with thee they go.

Every feeling hath been shaken;
Pride, which not a world could bow,
Bows to thee—by thee forsaken,
E'en my soul forsakes me now.

But 'tis done; all words are idle—
Words from me are vainer still;
But the thoughts we cannot bridle
Force their way without the will.

Fare thee well! thus disunited,
Torn from every nearer tie,
Seared in heart, and lone, and blighted,
More than this I scarce can die.

The Hour of Death.

MRS. FELICIA HEMANS.

LEAVES have their time to fall,
And flowers to wither at the north wind's breath,
And stars to set—but all,
Thou hast all seasons for thine own, O Death!

Day is for mortal care,
Eve for glad meetings round the joyous hearth,
Night for the dreams of sleep, the voice of prayer—
But all for thee, thou mightiest of the earth.

The banquet hath its hour,
Its feverish hour of mirth, and song, and wine;
There comes a day for grief's o'erwhelming power,
A time for softer tears—but all are thine.

Youth and the opening rose
May look like things too glorious for decay,
And smile at thee—but thou art not of those
That wait the ripened bloom to seize their prey.

Leaves have their time to fall,
And flowers to wither at the north wind's breath,
And stars to set—but all,
Thou hast all seasons for thine own, O Death!



We know when moons shall wane,
When summer-birds from far shall cross the sea,
When autumn's hue shall tinge the golden grain—
But who shall teach us when to look for thee?

Is it when Spring's first gale
Comes forth to whisper where the violets lie?
Is it when roses in our paths grow pale?—
They have *one* season—*all* are ours to die!

Thou art where billows foam,
Thou art where music melts upon the air;
Thou art around us in our peaceful home,
And the world calls us forth—and thou art there.

Thou art where friend meets friend,
Beneath the shadow of the elm to rest—
Thou art where foe meets foe, and trumpets rend
The skies, and swords beat down the princely crest.

Leaves have their time to fall,
And flowers to wither at the north wind's breath,
And stars to set—but all,
Thou hast all seasons for thine own, O Death!

A Woman's Question.

ELIZABETH BARRETT BROWNING.

DO you know you have asked for the costliest thing
Ever made by the Hand above—
A woman's heart and a woman's life,
And a woman's wonderful love?

Do you know you have asked for this priceless thing
As a child might ask for a toy?
Demanding what others have died to win,
With the reckless dash of a boy?

You have written my lesson of duty out,
Man-like you have questioned me—
Now stand at the bar of my woman's soul,
Until I shall question thee.

You require your mutton shall always be hot,
Your socks and your shirts shall be whole;
I require your heart to be true as God's stars,
And pure as heaven your soul.

You require a cook for your mutton and beef;
I require a far better thing:
A seamstress you're wanting for stockings and shirts—
I look for a man and a king



A king for a beautiful realm called home,
And a man that the maker, God,
Shall look upon as He did the first,
And say, "It is very good."

I am fair and young, but the rose will fade
From my soft, young cheek one day—
Will you love me then, 'mid the falling leaves,
As you did 'mid the bloom of May?

Is your heart an ocean so strong and deep
I may launch my all on its tide?
A loving woman finds heaven or hell
On the day she is made a bride.

I require all things that are grand and true,
All things that a man should be;
If you give this all, I would stake my life
To be all you demand of me.

If you cannot do this—a laundress and cook
You can hire, with little to pay;
But a woman's heart and a woman's life
Are not to be won that way.

Horseback Ride.



SARA JANE LIPPINCOTT (Grace Greenwood).

WHEN troubled in spirit, when weary of life,
When I faint 'neath its burdens, and shrink from its strife,
When its fruit, turned to ashes, are mocking my taste,
And its fairest scene seems but a desolate waste,
Then come ye not near me, my sad heart to cheer
With friendship's soft accents or sympathy's tear;
No pity I ask, and no counsel I need,
But bring me, oh, bring me, my gallant young steed!
With his high arched neck, and his nostril spread wide,
His eye full of fire, and his step full of pride!
As I spring to his back, as I seize the strong rein,
The strength to my spirit returneth again;
The bonds are all broken that fettered my mind,
And my cares borne away on the wings of the wind;
My pride lifts its head, for a season bowed down,
And the queen in my nature now puts on her crown!
Now we're off—like the winds to the plains whence they came,
And the rapture of motion is thrilling my frame!
On, on speeds my courser, scarce printing the sod,
Scarce crushing a daisy to mark where he trod!
On, on like a deer, when the hound's early bay
Awakes the wild echoes, away and away!
Still faster, still farther, he leaps at my cheer,
Till the rush of the startled air whirs in my ear!
Now 'long a clear rivulet lieth his track,
See his glancing hoofs tossing the white pebbles back;
Now a glen dark as midnight—what matter?—we'll down,
Though shadows are round us, and rocks o'er us frown;
The thick branches shake as we're hurrying through,
And deck us with spangles of silvery dew.
What a wild thought of triumph that this girlish hand
Such a steed in the might of his strength may command!
What a glorious creature! Ah! glance at him now,
As I check him awhile on this green hillock's brow;
How he tosses his mane, with a shrill, joyous neigh,
And paws the firm earth in his proud, stately play!
Hurrah! off again, dashing on as in ire,
Till a long, flinty pathway is flashing with fire!
Ho! a ditch! Shall we pause? No; the bold leap we dare,
Like a swift-winged arrow we rush through the air!
Oh, not all the pleasures that poets may praise,
Not the 'wildering waltz in the ball-room's blaze,
Nor the chivalrous joust, nor the daring race,
Nor the swift regatta, nor merry chase,
Nor the sail, high heaving waters o'er,
Nor the rural dance on the moonlight shore,
Can the wild and thrilling joy exceed
Of a fearless leap on a fiery steed!

Angel Watchers.



ROSA VERTNER JEFFREY.

ANGEL faces watch my pillow, angel voices haunt my sleep,
And upon the winds of midnight shining pinions round me sweep,
Floating downward on the starlight two bright infant forms I see—
They are mine, my own bright darlings, come from heaven to visit me.

Earthly children smile upon me, but these little ones above
Were the first to stir the fountains of a mother's deathless love,
And as now they watch my slumber, while their soft eyes on me shine,
God forgive a mortal yearning still to call His angels mine.

Earthly children fondly call me, but no mortal voice can seem
Sweet as those that whisper "Mother!" 'mid the glories of my dream;
Years will pass, and earthly prattlers cease perchance to lisp my name,
But my angel babies' accents will be evermore the same.

And the bright band now around me from their home perchance will rove,
In their strength no more depending on my constant care and love;
But my first-born still shall wander from the sky, in dreams to rest
Their soft cheeks and shining tresses on an earthly mother's breast.

Time may steal away the freshness, or some whelming grief destroy
All the hope that erst had blossomed, in my summer time of joy;
Earthly children may forsake me, earthly friends perhaps betray,
Every tie that now unites me to this life may pass away:

But, unchanged, those angel watchers, from their blessed, immortal home,
Pure and fair, to cheer the sadness of my darkened dreams shall come,
And I cannot feel forsaken, for, though reft of earthly love,
Angel children call me "Mother!" and my soul will look above.



A Farewell.

CHARLES KINGSLEY.

MY fairest child, I have no song to give you,
No lark could pipe to skies so dull and gray,
Yet, ere we part, one lesson I can leave you
For every day.

Be good, sweet maid, and let who will be clever;
Do noble things, not dream them all day long;
nd so make life, death, and that vast forever,
One grand, sweet song.

What the Birds Say.

SAMUEL TAYLOR COLERIDGE.

DO you ask what the birds say? The sparrow, the dove,
The linnet and thrush say, "I love, and I love!"
In the winter they're silent, the wind is so strong;
What it says I don't know, but it sings a loud song.

But green leaves, and blossoms, and sunny warm weather,
And singing and loving—all come back together;
But the lark is so brimful of gladness and love,
The green fields below him, the blue sky above,
That he sings, and he sings, and forever sings he,
"I love my Love, and my Love loves me."

COLERIDGE.

A Georgia Volunteer.

MARY A. TOWNSEND.

FAR up the lonely mountain side my wandering footsteps led;
The moss lay thick beneath my feet, the pine sighed overhead.
The trace of a dismantled fort lay in the forest nave,
And in the shadow near my path I saw a soldier's grave.

The bramble wrestled with the weed upon the lowly mound,
The simple headboard, rudely writ, had rotted to the ground;
I raised it with a reverent hand, from dust its words to clear,
But time had blotted all but these—"A Georgia Volunteer."

I saw the toad and scaly snake from tangled covert start,
And hide themselves among the weeds above the dead man's heart;
But undisturbed, in sleep profound, unheeding there he lay;
His coffin but the mountain soil, his shroud Confederate gray.

I heard the Shenandoah roll along the vale below,
I saw the Alleghenies rise towards the realms of snow.
The "Valley Campaign" rose to mind—its leader's name—and then
I knew the sleeper had been one of Stonewall Jackson's men.

Yet whence he came, what lip shall say—whose tongue will ever tell—
What desolate hearths and hearts have been because he fell?
What sad-eyed maiden braids her hair, her hair which he held dear?
One lock of which, perchance, lies with the Georgia Volunteer!

What mother, with long watching eyes and white lips cold and dumb,
Waits with appalling patience for her darling boy to come?
Her boy! whose mountain grave swells up but one of many a scar
Cut on the face of our fair land by gory-handed war.

What fights he fought, what wounds he wore, are all unknown to fame;
Remember, on his lonely grave there is not e'en a name!
That he fought well and bravely, too, and held his country dear,
We know, else he had never been a Georgia Volunteer.

He sleeps—what need to question now if he were wrong or right?
He knows, ere this, whose cause was just in God the Father's sight.
He wields no warlike weapons now, returns no foeman's thrust—
Who but a coward would revile an honored soldier's dust?

Roll, Shenandoah, proudly roll, adown thy rocky glen;
Above thee lies the grave of one of Stonewall Jackson's men.
Beneath the cedar and the pine, in solitude austere,
Unknown, unnamed, forgotten, lies a Georgia Volunteer.

The Picket Guard.

ETHEL LYNN BEERS.

"ALL quiet along the Potomac," they say,
"Except now and then a stray picket
Is shot, as he walks on his beat, to and fro,
By a rifleman off in the thicket.
'Tis nothing—a private or two, now and then,
Will not count in the news of the battle;
Not an officer lost—only one of the men,
Moaning out, all alone, the death-rattle."

All quiet along the Potomac to-night,
Where the soldiers lie peacefully dreaming;
Their tents in the rays of the clear autumn moon
Or the light of the watchfires are gleaming.
A tremulous sigh, as the gentle night-wind
Through the forest-leaves softly is creeping,
While stars up above, with their glittering eyes,
Keep guard—for the army is sleeping.

There's only the sound of the lone sentry's tread,
As he tramps from the rock to the fountain,
And thinks of the two in the low trundle-bed
Far away in the cot on the mountain.
His musket falls slack—his face, dark and grim,
Grows gentle with memories tender,
As he mutters a prayer for the children asleep—
For their mother—may Heaven defend her!

The moon seems to shine just as brightly as then,
That night, when the love yet unspoken
Leaped up to his lips—when low-murmured vows
Were pledged to be ever unbroken.
Then, drawing his sleeve roughly over his eyes,
He dashes off tears that are welling,
And gathers his gun closer up to its place
As if to keep down the heart-swelling.

He passes the fountain, the blasted pine-tree—
The footstep is lagging and weary;
Yet onward he goes, through the broad belt of light
Toward the shades of the forest so dreary.
Hark! was it night-wind that rustled the leaves?
Was it moonlight so wondrously flashing?
It looked like a rifle—"Ah! Mary, good-by!"
And the life-blood is ebbing and plashing.

All quiet along the Potomac to-night,
No sound save the rush of the river:
While soft falls the dew on the face of the dead—
The picket's off duty forever.

Soldier's Dream.



THOMAS CAMPBELL.

OUR bugles sang truce—for the night-cloud had lowered;
And the sentinel stars set their watch in the sky;
And thousands had sunk on the ground overpowered,
The weary to sleep, the wounded to die.

When reposing that night on my pallet of straw,
By the wolf-scaring faggot that guarded the slain,
At the dead of the night a sweet vision I saw,
And thrice ere the morning I dreamt it again.

Methought from the battle-field's dreadful array,
Far, far I had roamed on a desolate track:
'Twas autumn—and sunshine arose on the way,
To the home of my fathers, that welcomed me back.

I flew to the pleasant field traversed so oft
In life's morning march when my bosom was young;
I heard my own mountain goats bleating aloft,
And knew the sweet strain the corn-reapers sung.

Then pledged we the wine-cup, and fondly I swore
From my home and my weeping friends never to part;
My little ones kissed me a thousand times o'er,
And my wife sobbed aloud in her fulness of heart.

"Stay, stay with us—rest, thou art weary and worn;"
And fain was their war-broken soldier to stay;
But sorrow returned with the dawning of morn,
And the voice in my dreaming melted away.

Bill and Joe.

OLIVER WENDELL HOLMES.

COME, dear old comrade, you and I
Will steal an hour from days gone by—
The shining days when life was new,
And all was bright as morning dew,
The lusty days of long ago,
When you were Bill and I was Joe.

Your name may flaunt a titled trail,
Proud as a cockerel's rainbow tail;
And mine as brief appendix wear
As Tam O'Shanter's luckless mare;
To-day, old friend, remember still
That I am Joe and you are Bill.

You've won the great world's envied prize,
And grand you look in people's eyes,
With HON. and LL.D.,
In big brave letters, fair to see—
Your fist, old fellow! off they go!—
How are you, Bill? How are you, Joe?

You've worn the judge's ermine robe;
You've taught your name to half the globe;
You've sung mankind a deathless strain;
You've made the dead past live again;
The world may call you what it will,
But you and I are Joe and Bill.

The chaffing young folks stare and say,
"See those old buffers, bent and gray;
They talk like fellows in their teens!
Mad, poor old boys! That's what it means"—
And shake their heads; they little know
The throbbing hearts of Bill and Joe—

How Bill forgets his hour of pride,
While Joe sits smiling at his side;
How Joe, in spite of time's disguise,
Finds the old schoolmate in his eyes—
Those calm, stern eyes that melt and fill
As Joe looks fondly up at Bill.

Ah, pensive scholar! what is fame?
A fitful tongue of leaping flame;
A giddy whirlwind's fickle gust,
That lifts a pinch of mortal dust:
A few swift years, and who can show
Which dust was Bill, and which was Joe?

The weary idol takes his stand,
Holds out his bruised and aching hand,
While gaping thousands come and go—
How vain it seems, this empty show!—
Till all at once his pulses thrill:
'Tis poor old Joe's "God bless you, Bill!"

And shall we breathe in happier spheres
The names that pleased our mortal ears—
In some sweet lull of harp and song,
For earth-born spirits none too long—
Just whispering of the world below,
Where this was Bill, and that was Joe?

Extract from Lucile.

OWEN MEREDITH.

WE may live without poetry, music and art;
We may live without conscience and live without heart;
We may live without friends; we may live without books;
But civilized man cannot live without cooks.

We may live without books,—what is knowledge but grieving?
We may live without hope,—what is hope but deceiving?
We may live without love,—what is passion but pining?
But where is the man that can live without dining?

Pictures of Memory.

ALICE CARY.

AMONG the beautiful pictures
That hang on Memory's wall,
Is one of a dim old forest,
That seemeth best of all.
Not for its gnarled oaks olden,
Dark with the mistletoe;
Not for the violets golden
That sprinkle the vale below;
Not for the milk-white lilies
That lean from the fragrant hedge,
Coquetting all day with the sunbeams,
And stealing their golden edge;
Not for the vines on the upland
Where the bright red berries rest,
Nor the pinks, nor the pale, sweet cowslip
It seemeth to me the best.



I once had a little brother
With eyes that were dark and deep—
In the lap of that dim old forest,
He lieth in peace asleep.
Light as the down of the thistle,
Free as the winds that blow,
We roved there, the beautiful summers
The summers of long ago;
But his feet on the hills grew weary,
And one of the autumn eves,
I made for my little brother
A bed of the yellow leaves

Sweetly his pale arms folded
My neck in a meek embrace
As the light of immortal beauty
Softly covered his face,
And when the arrows of sunset
Lodged in the tree-tops bright,
He fell, in his saint-like beauty,
Asleep by the gates of light.

Therefore, of all the pictures
That hang on Memory's wall,
The one of the dim old forest
Seemeth the best of all.

Go to Thy Rest.

LYDIA HUNTLEY SIGOURNEY.

GO to thy rest, fair child!
Go to thy dreamless bed,
While yet so gentle, undefiled,
With blessings on thy head.

Fresh roses in thy hand,
Buds on thy pillow laid,
Haste from this dark and fearful land,
Where flowers so quickly fade.

Shall love with weak embrace
Thy upward wing detain?



No! cherub angel, seek thy place
Amid the cherub train.

Ere sin hath seared the breast,
Or sorrow waked the tear,
Rise to thy throne of changeless rest,
In yon celestial sphere!

Because thy smile was fair,
Thy lip and eye so bright,
Because thy loving cradle-care
Was such a dear delight.

God Our Refuge.

CLARA LAUER BALDWIN.

WHEN the last hope of life
Has been crushed in the dust,
And the last of our loved ones are gone—
When we feel that there's none
Left, who love us and trust,
And we stand in the wide world alone—

When the friends of the past
Have become all estranged
And forget "*'tis divine to forgive*"—



When cold words are said,
And cold looks exchanged—
And there's naught left to hope for or live,—

Then 'tis joy to the soul
To know that there's One
Whose mercy and love reaches all—
Who in tenderest love
Clings till life's journey's done,
And pities us still when we fall.



We Parted in Silence.

MRS. JULIA CRAWFORD.

WE parted in silence, we part by night,
On the banks of that lonely river;
Where the fragrant limes their boughs unite
We met—and we parted forever!
The night-bird sung, and the stars above
Told many a touching story
Of friends long passed to the kingdom of love,
Where the soul wears its mantle of glory.

II.

We parted in silence—our cheeks were wet
With the tears that were past controlling;
We vowed we would never, no, never forget,
And those vows, at the time, were consoling;
But those lips that echoed the sounds of mine
Are as cold as that lonely river;
And that eye, that beautiful spirit's shrine,
Has shrouded its fires forever.

III.

And now, on the midnight sky I look,
And my heart grows full of weeping;
Each star is to me a sealed book,
Some tale of that loved one keeping.
We parted in silence, we parted in tears,
On the banks of that lonely river;
But the odor and bloom of those bygone years
Shall hang o'er its waters forever.

The Song of the Camp.

BAYARD TAYLOR.

"GIVE us a song!" the soldiers cried,
The outer trenches guarding,
When the heated guns of the camps allied
Grew weary of bombarding.

The dark Redan, in silent scoff,
Lay grim and threatening under;
And the tawny mound of the Malakoff
No longer belched its thunder.

There was a pause. A guardsman said,
"We storm the forts to-morrow;
Sing while we may, another day
Will bring enough of sorrow."

They lay along the battery's side,
Below the smoking cannon:
Brave hearts from Severn and from Clyde,
And from the banks of Shannon.

They sang of love, and not of fame;
Forgot was Britain's glory:
Each heart recalled a different name,
But all sang "Annie Laurie."

Voice after voice caught up the song,
Until its tender passion
Rose like an anthem, rich and strong,
Their battle-eve confession.

Dear girl, her name he dared not speak,
But as the song grew louder,
Something upon the soldier's cheek
Washed off the stains of powder.

Beyond the darkening ocean burned
The bloody sunset's embers,
While the Crimean valleys learned
How English love remembers.

And once again a fire of hell
Rained on the Russian quarters,
With scream of shot, and burst of shell,
And bellowing of the mortars!

And Irish Nora's eyes are dim
For a singer dumb and gory;
And English Mary mourns for him
Who sang of "Annie Laurie."

Sleep, soldiers! still in honored rest
Your truth and valor wearing:
The bravest are the tenderest,—
The loving are the daring.

Our Own.

MARGARET E. SANGSTER.

IF I had known in the morning
How wearily all the day
The words unkind
Would trouble my mind
I said when you went away,
I had been more careful, darling,
Nor given you needless pain;
But we vex "our own"
With look and tone
We might never take back again.

For though in the quiet evening
You may give me the kiss of peace,
Yet it might be
That never for me
The pain of the heart should cease.
How many go forth in the morning
That never come home at night!
And hearts have broken
For harsh words spoken,
That sorrow can ne'er set right.

We have careful thoughts for the stranger,
And smiles for the sometime guest,
But oft for "our own"
The bitter tone,
Though we *love* "our own" the best.
Ah, lips with the curve impatient!
Ah, brow with that look of scorn!
'Twere a cruel fate,
Were the night too late
To undo the work of morn.

There Is No Death.

J. L. MCCREERY.

THERE is no death! The stars go down
To rise upon some fairer shore:
And bright in Heaven's jewelled crown
They shine forevermore.

There is no death! The dust we tread
Shall change beneath the summer showers
To golden grain or mellow fruit,
Or rainbow-tinted flowers.

There is no death! The forest leaves
Convert to life the viewless air;
The rocks disorganize to feed
The hungry moss they bear.

There is no death! The leaves may fall,
And flowers may fade and pass away;
They only wait through wintry hours
The coming of the May.

There is no death! An angel form
Walks o'er the earth with silent tread,
He bears our best loved things away;
And then we call them "dead."

He leaves our hearts all desolate,
He plucks our fairest, sweetest flowers.
Transplanted into bliss, they now
Adorn immortal bowers.

The bird-like voice, whose joyous tones
Made glad these scenes of sin and strife,
Sings now an everlasting song
Around the tree of life.

Where'er he sees a smile too bright,
Or heart too pure for taint and vice,
He bears it to that world of light,
To dwell in Paradise.

Born unto that undying life,
They leave us but to come again;
With joy we welcome them the same—
Except their sin and pain.

And ever near us, though unseen,
The dear immortal spirits tread;
For all the boundless universe
Is life—*there are no dead.*

Makin' an Editor Outen o' Him.

WILL M. CARLETON.

"GOOD mornin', sir, Mr. Printer; how is your body to-day?
I'm glad you're to home, for you fellers is al'ays a runnin' away.
Your paper last week wa'n't so spicy nor sharp as the one week before;
But I s'pose when the campaign is opened, you'll be whoopin' it up to 'em more.
That feller that's printin' *The Smasher* is goin' for you perty smart;
And our folks said this mornin' at breakfast, they thought he was gettin' the start.
But I hushed 'em right up in a minute, and said a good word for you;
I told 'em I b'lieved you was tryin' to do just as well as you knew;
And I told 'em that some one was sayin', and whoever 'twas it is so,
That you can't expect much of no one man, nor blame him for what he don't know.
But, layin' aside *pleasure* for business, I've brought you my little boy Jim;
And I thought I would see if you couldn't make an editor outen o' him.

"My family stock is increasin', while other folks seem to run short.
I've got a right smart of a family—it's one of the old-fashioned sort:
There's Ichabod, Isaac and Israel, a workin' away on the farm,
They do 'bout as much as one good boy, and make things go off like a charm.
There's Moses and Aaron are sly ones, and slip like a couple of eels;
But they're tol'able steady in one thing—they al'ays git round to their meals.
There's Peter, is busy inventin' (though *what* he invents I can't see),
And Joseph is studyin' medicine—and both of 'em boardin' with me.
There's Abram and Albert is married, each workin' my farm for himself,
And Sam smashed his nose at a shootin', and so he is laid on the shelf.
The rest of the boys are all growin' 'cept this little runt, which is Jim,
And I thought that perhaps I'd be makin' an editor outen o' him.

"He ain't no great shakes for to labor, though I've labored with him a good deal,
And give him some strappin' good arguments I know he couldn't help but to feel;
But he's built out of second-growth timber, and nothin' about him is big,
Exceptin' his appetite only, and there he's as good as a pig.
I keep him carryin' luncheons, and fillin' and bringin' the jugs,
And take him among the pertatoes, and set him to pickin' the bugs;
And then there's things to be doin' a helpin' the women in-doors;
There's churnin' and washin' of dishes, and other descriptions of chores;
But he don't take to nothin' but victuals, and he'll never be much, I'm afraid,
So I thought it would be a good notion to larn him the editor's trade.
His body's too small for a farmer, his judgment is rather too slim,
But I thought we perhaps could be makin' an editor outen o' him.

"It ain't much to get up a paper, it wouldn't take him long for to learn;
He could feed the machine, I'm thinkin', with a good strappin' fellow to turn.
And things that was once hard in doin' is easy enough now to do;
Just keep your eye on your machinery, and crack your arrangements right through.
I used for to wonder at readin', and where it was got up, and how:
But 'tis most of it made by machinery—I can see it all plain enough now.
And poetry, too, is constructed by machines of different designs,
Each one with a gauge and a chopper, to see to the length of the lines;
And I hear a New York clairvoyant is runnin' one sleeker than grease,
And a-*rentin'* her heaven-born productions at a couple of dollars apiece;
An' since the whole trade has growed easy, 'twould be easy enough, I've a whim,
If you was agreed, to be makin' an editor outen o' Jim."

The editor sat in his sanctum and looked the old man in the eye,
Then glanced at the grinning young hopeful, and mournfully made his reply:
"Is your son a small unbound edition of Moses and Solomon both?
Can he compass his spirit with meekness, and strangle a natural oath?
Can he leave all his wrongs to the future, and carry his heart in his cheek?
Can he do an hour's work in a minute, and live on a sixpence a week?
Can he courteously talk to an equal, and browbeat an impudent dunce?
Can he keep things in apple-pie order, and do half-a-dozen at once?

"Can he press all the springs of knowledge with quick and reliable touch,
And be sure that he knows how much *to* know, and knows how to not know too much?
Does he know how to spur up his virtue, and put a check-rein on his pride?
Can he carry a gentleman's manners within a rhinoceros' hide?
Can he know all, and do all, and be all, with cheerfulness, courage and vim?
If so, we perhaps can be 'makin' an editor outen o' him.'"

The farmer stood curiously listening, while wonder his visage o'erspread,
And he said: "Jim, I guess we'll be goin'; he's probably out of his head."

The Lightning-Rod Dispenser.

WILL M. CARLETON.

WHICH this railway smash reminds me, in an underhanded way,
Of a lightning-rod dispenser that came down on me one day;
Oiled to order in his motions—sanctimonious in his mien—
Hands as white as any baby's an' a face unnat'ral clean;
Not a wrinkle had his raiment, teeth and linen glittered white,
And his new-constructed neck-tie was an interestin' sight!
Which I almost wish a razor had made red that white-skinned throat,
And that new-constructed neck-tie had composed a hangman's knot,
Ere he brought his sleek-trimmed carcass for my women folks to see,
And his buzz-saw tongue a-runnin' for to gouge a gash in me.
Still I couldn't help but like him—as I fear I al'ays must,
The gold o' my own doctrine in a fellow heap o' dust;
For I saw that my opinions, when I fired them round by round,
Brought back an answerin' volley of a mighty similar sound.
I touched him on religion, and the joys my heart had known;
And I found that he had very similar notions of his own!
I told him of the doubtings that made sad my boyhood years;
Why, he'd laid awake till morning with that same old breed of fears!

I pointed up the pathway that I hoped to heaven to go:
He was on that very ladder, only just a round below!
Our politics was different, and at first he galled and winced;
But I arg'ed him so able, he was very soon convinced.
And 'twas gettin' tow'rd the middle of a hungry summer day—
There was dinner on the table, and I asked him, would he stay?
And he sat him down among us—everlastin' trim and neat—
And he asked a short crisp blessin' almost good enough to eat!
Then he fired up on the mercies of our Everlastin' Friend,

Till he gi'n the Lord Almighty a good, first-class recommend:
And for full an hour we listened to that sugar-coated scamp—
Talkin' like a blessèd angel—eatin' like a blasted tramp!

My wife—she liked the stranger, smiling on him warm and sweet;
(It al'ays flatters women when their guests are on the eat!)
And he hinted that some ladies never lose their youthful charms,
And caressed her yearlin' baby, and received it in his arms.
My sons and daughters liked him—for he had progressive views,
And he chewed the cud o' fancy, and gi'n down the latest news:
And *I* couldn't help but like him—as I fear I al'ays must,
The gold of my own doctrines in a fellow-heap o' dust.

He was chiselin' desolation through a piece of apple-pie,
When he paused and gazed upon us, with a tear in his off eye,
And said, "Oh, happy family!—your joys they make me sad!
They all the time remind me of the dear ones once *I* had!
A babe as sweet as this one; a wife *almost* as fair;
A little girl with ringlets, like that one over there.
But had I not neglected the means within my way,
Then they might still be living, and loving me to-day.

"One night there came a tempest; the thunder peals were dire;
The clouds that marched above us were shooting bolts of fire;
In my own house I lying, was thinking, to my shame,
How little I had guarded against those bolts of flame,
When crash!—through roof and ceiling the deadly lightning cleft,
And killed my wife and children, and only I was left!

"Since then afar I've wandered, and naught for life have cared,
Save to save others' loved ones whose lives have yet been spared;
Since then it is my mission, where'er by sorrow tossed,
To sell to worthy people good lightning-rods at cost.
With sure and strong protection I'll clothe your buildings o'er;
'Twill cost you—twenty dollars (*perhaps* a *trifle* more;
Whatever else it comes to, at lowest price I'll put;
You simply *sign a contract* to pay so much per foot)."

I—signed it! while my family, all approvin', stood about;
The villain dropped a tear on't—but he didn't blot it out!
That self-same day, with wagons, came some rascals great and small;
They hopped up on my buildin's just as if they owned 'em all;
They hewed 'em and they hacked 'em—agin' my loud desires—
They trimmed 'em off with gewgaws, and they bound 'em down with wires;
They hacked 'em and they hewed 'em and they hewed and hacked 'em still,
And every precious minute kep' a runnin' up the bill.

To find my soft-spoke neighbor, did I rave and rush and run;
He was suppin' with a neighbor, just a few miles further on.
"Do you think," I loudly shouted, "that I need a mile o' wire
For to save each separate hay-cock out o' heaven's consumin' fire?
Did you think, to keep my buildin's out o' some uncertain harm,
I was goin' to deed you over all the balance of my farm!"

He silenced me with silence in a very little while,
And then trotted out the contract with a reassuring smile;
And for half an hour explained it, with exasperatin' skill,
While his myrmurdums kep' probably a runnin' up my bill.
He held me to that contract with a firmness queer to see;
'Twas the very first occasion he had disagreed with me!
And for that 'ere thunder story, ere the rascal finally went,
I paid two hundred dollars, if I paid a single cent.

And if any lightnin'-rodist wants a dinner dialogue
With the restaurant department of an enterprisin' dog,
Let him set his mouth a-runnin' just inside my outside gate,
And I'll bet two hundred dollars that he won't have long to wait.

Hannah Jane.

PETROLEUM V. NASBY.

SHE isn't half so handsome as when, twenty years agone,
At her old home in Piketon, Parson Avery made us one;
The great house crowded full of guests of every degree,
The girls all envying Hannah Jane, the boys all envying me.

Her fingers then were taper, and her skin as white as milk,
Her brown hair—what a mess it was! and soft and fine as silk;
No wind-moved willow by a brook had ever such a grace,
The form of Aphrodite, with a pure Madonna face.

She had but meagre schooling; her little notes to me
Were full of crooked pot-hooks, and the worst orthography:
Her "dear" she spelled with double *r*, and "kiss" with but one *s*;
But when one's crazed with passion, what's a letter more or less?

She blundered in her writing, and she blundered when she spoke,
And every rule of syntax, that old Murray made, she broke;
But she was beautiful and fresh, and I—well, I was young;
Her form and face o'erbalanced all the blunders of her tongue.

I was but little better. True, I'd longer been at school;
My tongue and pen were run, perhaps, a little more by rule;
But that was all. The neighbors round, who both of us well knew,
Said—which I believe—she was the better of the two.

All's changed: the light of seventeen's no longer in her eyes;
Her wavy hair is gone—that loss the coiffeur's art supplies.
Her form is thin and angular, she slightly forward bends,
Her fingers, once so shapely, now are stumpy at the ends.

She knows but very little, and in little are we one;
The beauty rare, that more than hid that great defect, is gone.
My *parvenu* relations now deride my homely wife,
And pity me that I am tied to such a clod for life.

I know there is a difference; at reception and levee,
The brightest, wittiest and most famed of women smile on me;
And everywhere I hold my place among the greatest men;
And sometimes sigh, with Whittier's Judge, "Alas! it might have been.'

When they all crowd around me, stately dames and brilliant belles,
And yield to me the homage that all great success compels,
Discussing art and state-craft, and literature as well,
From Homer down to Thackeray, and Swedenborg on "Hell,"

I can't forget that from these streams my wife has never quaffed,
Has never with Ophelia wept, nor with Jack Falstaff laughed;
Of authors, actors, artists—why, she hardly knows the names;
She slept while I was speaking on the *Alabama* claims.

I can't forget—just at this point another form appears—
The wife I wedded as she was before my prosperous years;
I travel o'er the dreary road we travelled side by side,
And wonder what my share would be, if Justice should divide.

She had four hundred dollars left her from the old estate;
On that we married, and, thus poorly armored, faced our fate.
I wrestled with my books; her task was harder far than mine—
'Twas how to make two hundred dollars do the work of nine.

At last I was admitted; then I had my legal lore,
An office with a stove and desk, of books perhaps a score;
She had her beauty and her youth, and some housewifely skill,
And love for me and faith in me, and back of that a will.

I had no friends behind me—no influence to aid;
I worked and fought for every little inch of ground I made.
And how she fought beside me! never woman lived on less;
In two long years she never spent a single cent for dress.

Ah! how she cried for joy when my first legal fight was won,
When our eclipse passed partly by, and we stood in the sun!
The fee was fifty dollars—'t was the work of half a year—
First captive, lean and scraggy, of my legal bow and spear.

I well remember when my coat (the only one I had)
Was seedy grown and threadbare, and, in fact, most shocking bad;
The tailor's stern remark when I a modest order made:
"Cash is the basis, sir, on which we tailors do our trade."

Her winter cloak was in his shop by noon that very day;
She wrought on hickory shirts at night that tailor's skill to pay;
I got a coat, and wore it; but alas! poor Hannah Jane
Ne'er went to church or lecture till warm weather came again.

Our second season she refused a cloak of any sort,
That I might have a decent suit in which t' appear in court;
She made her last year's bonnet do, that I might have a hat:
Talk of the old-time, flame-enveloped martyrs after that!

No negro ever worked so hard; a servant's pay to save,
She made herself most willingly a household drudge and slave.
What wonder that she never read a magazine or book,
Combining as she did in one nurse, housemaid, seamstress, cook.

What wonder that the beauty fled, that I once so adored!
Her beautiful complexion my fierce kitchen fire devoured;
Her plump, soft, rounded arm was once too fair to be concealed;
Hard work for me that softness into sinewy strength congealed.

I was her altar, and her love the sacrificial flame:
Ah! with what pure devotion she to that altar came,
And, tearful, flung thereon—alas! I did not know it then—
All that she was, and more than that, all that she might have been!

John Anderson, My Jo.

ROBERT BURNS.

JOHN ANDERSON, my jo, John,
When we were first acquent,
Your locks were like the raven,
Your bonnie brow was brent;
But now your brow is beld, John,
Your locks are like the snaw;
But blessings on your frosty pow,
John Anderson, my jo.



John Anderson, my jo, John,
We clamb the hill thegither;
And mony a canty day, John,
We've had wi' ane anither.
Now we maun totter down, John,
But hand in hand we'll go;
And sleep thegither at the foot,
John Anderson, my jo.

Home, Sweet Home.

JOHN HOWARD PAYNE.

As published by Mr. Payne, in New York, in 1831.

'MID pleasures and palaces though we may roam,
Be it ever so humble, there's no place like home.
A charm from the skies seems to hallow us there,
Which seek through the world, is ne'er met with elsewhere.
Home! home! sweet, sweet home!
There's no place like home! there's no place like home!

An exile from home, splendor dazzles in vain;
Oh, give me my lowly thatched cottage again.
The birds singing gaily that come to my call—
Give me them, with the peace of mind dearer than all.
Home! home! sweet, sweet home!
There's no place like home! there's no place like home

How sweet 'tis to sit 'neath a fond father's smile,
And the cares of a mother to soothe and beguile!
Let others delight 'mid new pleasures to roam,
But give, oh! give me the pleasures of home.
Home! home! sweet, sweet home!
There's no place like home! there's no place like home.

To thee I'll return, overburdened with care;
The heart's dearest solace will smile on me there.
No more from that cottage again will I roam;
Be it ever so humble, there's no place like home.
Home! home! sweet, sweet home!
There's no place like home! there's no place like home!

The Bivouac of the Dead.

THEODORE O'HARA.

The Legislature of Kentucky caused the dead of that State who fell at Buena Vista to be brought home and interred at Frankfort, under a splendid monument. Theodore O'Hara, a gifted Irish-Kentuckian soldier and scholar, was selected the orator and poet of the occasion, whence this beautiful eulogy, which has the same application to-day.

THE muffled drum's sad roll has beat
The soldier's last tattoo;
No more on life's parade shall meet
That brave and fallen few.
On fame's eternal camping-ground
Their silent tents are spread,
And glory guards, with solemn round,
The bivouac of the dead.

No rumor of the foe's advance
Now swells upon the wind;
No troubled thought at midnight haunts
Of loved ones left behind;
No vision of the morrow's strife
The warrior's dream alarms;
No braying horn nor screaming fife
At dawn shall call to arms.

Their shivered swords are red with rust,
Their plumed heads are bowed;
Their haughty banner, trailed in dust,
Is now their martial shroud.
And plenteous funeral tears have washed
The red stains from each brow,
And the proud forms, by battle gashed,
Are free from anguish now.

The neighing troop, the flashing blade,
The bugle's stirring blast,
The charge, the dreadful cannonade,
The din and shout are past;
Nor war's wild note nor glory's peal
Shall thrill with fierce delight
Those breasts that never more may feel
The rapture of the fight.

Like the fierce northern hurricane
That sweeps his great plateau,
Flushed with the triumph yet to gain
Came down the serried foe.
Who heard the thunder of the fray
Break o'er the field beneath
Knew well the watchword of that day
Was "Victory or death."

Long had the doubtful conflict raged
O'er all that stricken plain—
For never fiercer fight had waged
The vengeful blood of Spain—
And still the storm of battle blew,
Still swelled the gory tide;
Not long, our stout old chieftain knew,
Such odds his strength could bide.

'Twas in that hour his stern command
Called to a martyr's grave
The flower of his beloved land,
The nation's flag to save.
By rivers of their fathers' gore
His first-born laurels grew,
And well he deemed the sons would pour
Their lives for glory, too.

Full many a mother's breath had swept
O'er Angostura's plain—
And long the pitying sky has wept
Above the moldering slain.
The raven's scream, or eagle's flight,
Or shepherd's pensive lay,
Alone awakes each sullen height
That frowned o'er that dread fray.

Sons of the Dark and Bloody Ground,
Ye must not slumber there,
Where stranger steps and tongues resound
Along the heedless air;
Your own proud land's heroic soil
Shall be your fitter grave—
She claims from war his richest spoil—
The ashes of her brave.

So, 'neath their parent turf they rest,
Far from the gory field,
Borne to a Spartan mother's breast,
On many a bloody shield;
The sunshine of their native sky
Smiles sadly on them here,
And kindest eyes and hearts watch by
The heroes' sepulchre.

Rest on, embalmed and sainted dead,
Dear as the blood ye gave;
No impious footstep here shall tread
The herbage of your grave;
Nor shall your glory be forgot
While fame her record keeps
Or honor points the hallowed spot
Where valor proudly sleeps.

Yon marble minstrel's voiceless stone
In deathless song shall tell,
When many a vanished age hath flown,
The story how ye fell;
Nor wreck, nor change, nor winter's blight,
Nor Time's remorseless doom,
Shall dim one ray of glory's light
That gilds your deathless tomb.

The Stars and the Flowers.

OLIVER WENDELL HOLMES.

WHEN Eve had led her lord away,
And Cain had killed his brother,
The stars and flowers, the poets say
Agreed with one another

To cheat the cunning tempter's art,
And teach the race its duty,
By keeping on its wicked heart
Their eyes of light and beauty,

A million sleepless lids, they say,
Will be at least a warning,
And so the flowers would watch by day,
The stars from eve to morning.



They try to shut their saddening eyes,
And in the vain endeavor
We see them twinkling in the skies,
And so they wink forever

On hill and prairie, field and lawn,
Their dewy eyes upturning,
The flowers still watch from reddening dawn
Till western skies are burning

Alas! each hour of daylight tells
A tale of shame so crushing,
That some turn white as sea-bleached shells,
And some are always blushing.

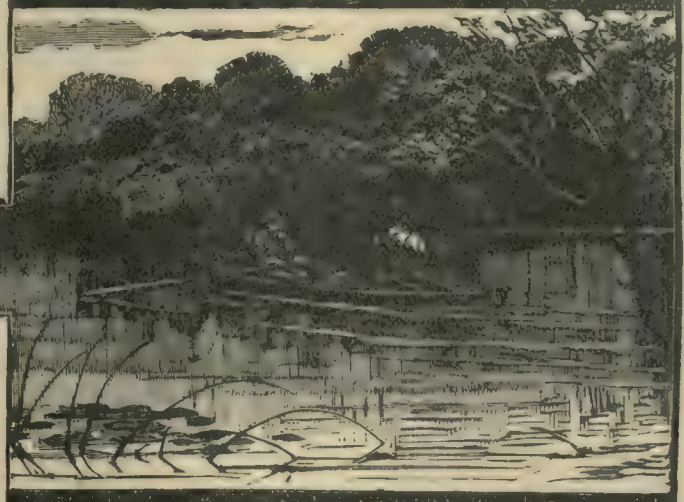
But when the patient stars look down
On all their light discovers,
The traitor's smile, the murderer's frown,
The lips of lying lovers,

Boat Song.

THOMAS MOORE.

FAINTLY as tolls the evening chime,
Our voices keep tune, and our oars keep time
Soon as the woods on the shore look dim,
We'll sing at St. Ann's our parting hymn;
Row, brothers, row! the stream runs fast,
The rapids are near and the daylight's past!





II.

Why should we yet our sail unfurl?
There is not a breath the blue wave to curl.
But when the wind blows off the shore,
Oh! sweetly we'll rest our weary oar.
Blow, breezes, blow! the stream runs fast,
The rapids are near, and the daylight's past!



III.

Utawa's tide! this trembling moon
Shall see us afloat o'er thy surges soon.
Saint of this green isle, hear our prayers—
Oh! grant us cool heavens and favoring airs!
Blow, breezes, blow! the stream runs fast,
The rapids are near, and the daylight's past!

Jim.

F. Bret Harte.

I SAY there! P'r'aps
Some on you chaps
Might know Jim Wild?
Well—no offence:
Thar aint no sense
In gettin' riled!

Jim was my chum
Up on the Bar:
That's why I come
Down from up thar,
Lookin' for Jim.
Thank ye, sir! *you*
Ain't of that crew—
Blest if you are!

Money?—Not much:
That ain't my kind;
I ain't no such.
Rum?—I don't mind,
Seein' it's you.

Well, this yer Jim,
Did you know him?—
Jess 'bout your size;
Same kind of eyes?—
Well, that is strange:
Why, it's two year
Since he come here,
Sick, for a change.

Well, here's to us?
Eh?
The *deuce* you say!
Dead?
That little cuss?

What makes you star—
You, over thar?
Can't a man drop
's glass in yer shop
But you must rar'?
It wouldn't take
Derned much to break
You and your bar

Dead!
Poor—little—Jim!;
—Why there was me,
Jones, and Bob Lee
Harry and Ben—
No-account men:
Then to take *him!*

Well, thar— Good-by—
No more, sir,—I—
Eh?
What's that you say?—
Why, dern it!—sho!—
No? Yes! By Jo!
Sold?
Sold! Why, you limb,
You ornery
Derned old
Long-legged Jim!

Married.

Anonymous.

OUR beautiful Maggie was married to-day—
Beautiful Maggie, with soft brown hair,
Whose shadows fall o'er a face as fair
As the snowy blooms of the early May:
We have kissed her lips and sent her away,
With many a blessing and many a prayer,
The pet of our house who was married to-day.

The sunshine is gone from the old south room,
Where she sat through the long, bright summer hours,
And the odor has gone from the window flowers,
And something is lost of their delicate bloom,
And a shadow creeps over the house with its gloom;
A shadow that over our paradise lowers,
For we see her no more in the old south room.

I thought that the song of the robin this eve,
As he sang to his mate on the sycamore tree,
Had minors of sadness to temper his glee,
As if he for the loss of our darling did grieve,
And asked, "Where is Maggie?" and "Why did she leave—
The maiden who carrolled sweet duets with me?"
For she mocked not the song of the robin this eve.

The pictures seem dim where they hang on the wall:
Though they cost but a trifle, they always looked fair,
Whether lamplight or sunlight illumined them there—
I think 'twas *her* presence that brightens them all.
Since Maggie no longer can come to our call,
With her eyes full of laughter, unshadowed by care,
The pictures seem dim where they hang on the wall.

I lounge through the garden, I stand by the gate—
She stood there to greet me last eve at this hour,
Every eve, through the summer, in sunshine or shower,
Just stood by the postern, my coming to wait—
Dear Maggie, her heart with its welcome elate,
To give me a smile, and a kiss, and a flower—
Oh! when will she meet me again by the gate?

She loved us and left us—she loves, and is gone
With the one she loves best, as his beautiful bride.
How fondly he called her his joy and his pride,
Our joy and our pride, whom he claims as his own!
But can he, like us, prize the heart he has won—
The heart that now trustingly throbs by his side?
God knows! and we know that she loves and is gone.



Winged Words.

JESSIE MCGREGOR,

In "Jack-in-the-Pulpit," "St. Nicholas."

IF words
were birds,
And swiftly flew
From tips
To lips
Owned, dear, by you,
Would they,
To-day,
Be hawks and crows?
Or blue,
And true,
And sweet? Who knows?

Let's play
To-day
We choose the best;
Birds blue
And true,
With dove-like breast!
'Tis queer,
My dear,
We never knew
That words,
Like birds,
Had wings and flew!

The Closing Scene.

T. Buchanan Read.

The following is pronounced by the *Westminster Review* to be unquestionably the finest American poem ever written.

WITHIN this sober realm of leafless trees,
The russet year inhaled the dreamy air,
Like some tanned reaper in his hour of ease,
When all the fields are lying brown and bare.

The gray barns looking from their hazy hills
O'er the dim waters widening in the vales,
Sent down the air a greeting to the mills,
On the dull thunder of alternate flails.

All sights were mellowed and all sounds subdued,
The hills seemed further and the streams sang low;
As in a dream the distant woodman hewed
His winter log with many a muffled blow.

The embattled forests, erewhile armed in gold,
Their banners bright with every martial hue,
Now stood, like some sad beaten host of old,
Withdrawn afar in Time's remotest blue.

On slumberous wings the vulture tried his flight;
The dove scarce heard his sighing mate's complaint;
And, like a star slow drowning in the light,
The village church-vane seemed to pale and faint.

The sentinel cock upon the hill-side crew—
Crew thrice, and all was stiller than before—
Silent till some replying wanderer blew
His alien horn, and then was heard no more.

Where erst the jay within the elm's tall crest
Made garrulous trouble round the unfledged young;
And where the oriole hung her swaying nest
By every light wind like a censer swung;

Where sang the noisy masons of the eaves,
The busy swallows circling ever near,
Foreboding, as the rustic mind believes,
An early harvest and a plenteous year;

Where every bird which charmed the vernal feast
Shook the sweet slumber from its wings at morn,
To warn the reapers of the rosy east—
All now was songless, empty, and forlorn

Alone, from out the stubble piped the quail,
And croaked the crow through all the dreamy gloom;
Alone the pheasant, drumming in the vale,
Made echo to the distant cottage loom.

There was no bud, no bloom upon the bowers;
The spiders wove their thin shrouds night by night;
The thistle-down, the only ghost of flowers,
Sailed slowly by—passed noiseless out of sight.

Amid all this, in this most cheerless air,
And where the woodbine sheds upon the porch
Its crimson leaves, as if the year stood there
Firing the floor with his inverted torch—

Amid all this, the centre of the scene,
The white-haired matron, with monotonous tread,
Plied her swift wheel, and with her joyless mien
Sat like a Fate, and watched the flying thread.

She had known sorrow. He had walked with her,
Oft supped, and broke with her the ashen crust;
And in the dead leaves still she heard the stir
Of his black mantle trailing in the dust.

While yet her cheek was bright with summer bloom,
Her country summoned, and she gave her all;
And twice War bowed to her his sable plume—
Re-gave the swords to rust upon her wall.

Re-gave the swords—but not the hand that drew,
And struck for liberty the dying blow;
Nor him who, to his sire and country true,
Fell, 'mid the ranks of the invading foe.

Long, but not loud, the droning wheel went on,
Like the low murmur of a hive at noon;
Long, but not loud, the memory of the gone
Breathed through her lips a sad and tremulous tune.

At last the thread was snapped—her head was bowed,
Life dropped the distaff through his hands serene;
And loving neighbors smoothed her careful shroud—
While Death and Winter closed the autumn scene.



The Death of the Flowers.

WILLIAM CULLEN BRYANT.

THE melancholy days are come, the saddest of the year,
Of wailing winds, and naked woods, and meadows
brown and sear.
Heaped in the hollows of the grove, the autumn leaves lie dead;
They rustle to the eddying gust, and to the rabbit's tread.
The robin and the wren are flown, and from the shrubs the jay,
And from the wood-top calls the crow through all the gloomy
day.

Where are the flowers, the fair young flowers, that lately sprang
and stood,
In brighter light and softer airs, a beauteous sisterhood?
Alas! they all are in their graves; the gentle race of flowers
Are lying in their lowly beds with the fair and good of ours.
The rain is falling where they lie; but the cold November rain
Calls not from out the gloomy earth the lovely ones again.

* * * * * * * * *

And then I think of one who in her youthful beauty died,
The fair meek blossom that grew up and faded by my side.
In the cold moist earth we laid her, when the forests cast the leaf,
And we wept that one so lovely should have a life so brief;
Yet not unmeet it was that one, like that young friend of ours,
So gentle and so beautiful, should perish with the flowers.

DICTIONARY OF PROSE AND POETICAL QUOTATIONS.

Arranged both Topically and Alphabetically.

Absence.

Conspicuous by his absence.
Sed præfulgebant Cassius atque Brutus, eo ipso
quod effigies eorum non videbantur.
Tacitus.

Absence makes the heart grow fonder;
Isle of Beauty, fare thee well!
Thomas Haynes Bayley.

I dote on his very absence.
Shakspere.

Your absence of mind we have borne, till your presence of body came to be called in question by it.
Lamb.

Accident.

A happy accident.
Mme. de Staël.

The accident of an accident.
Lord Thurlow.

Acquaintance.

Should auld acquaintance be forgot,
And never brought to mind?
Should auld acquaintance be forgot,
And days o' lang syne?
Burns.

If there be no great love in the beginning, yet Heaven may decrease it upon better acquaintance, when we are married, and have more occasion to know one another: I hope upon familiarity will grow more contempt.
Shakspere.

Action.

Statesman, yet friend to truth! of soul sincere,
In action faithful, and in honor clear;
Who broke no promise, serv'd no private end,
Who gain'd no title, and who lost no friend.
Pope.

What a piece of work is a man! How noble in reason! how infinite in faculties! in form and moving, how express and admirable! in action, how like an angel! in apprehension, how like a god!
Shakspere.

For since these arms of mine had seven years' pith,
Till now some nine moons wasted, they have us'd
Their dearest action in the tented field.
Shakspere.

In peace there's nothing so becomes a man
As modest stillness and humility;
But when the blast of war blows in our ears,
Then imitate the action of the tiger:
Stiffen the sinews, summon up the blood.
Shakspere.

With devotion's visage,
And pious action, we do sugar o'er
The Devil himself.
Shakspere.

Adversity.

A wretched soul, bruised with adversity.
Shakspere.

A man I am, cross'd with adversity.
Shakspere.

If thou faint in the day of adversity, thy strength is small.
Old Testament.

In the day of prosperity be joyful, but in the day of adversity consider
Old Testament.

Sweet are the uses of adversity,
Which, like the toad, ugly and venomous,
Wears yet a precious jewel in his head;
And this our life, exempt from public haunt,
Finds tongues in trees, books in the running brooks,
Sermons in stones, and good in everything.
Shakspere.

The aromatic plants bestow
No spicy fragrance while they grow;
But crush'd, or trodden to the ground,
Diffuse their balmy sweets around.

The wretch condemn'd with life to part,
Still, still on hope relies;
And every pang that rends the heart
Bids expectation rise.
Goldsmith.

Age.

My way of life
Is fall'n into the sear, the yellow leaf;
And that which should accompany old age,
As honor, love, obedience, troops of friends,
I must not look to have.
Shakspere.

Me, let the tender office long engage
To rock the cradle of reposing age,
With lenient arts extend a mother's breath,
Make languor smile, and smooth the bed of death:
Explore the thought, explain the asking eye,
And keep awhile one parent from the sky
Pope.

The stars shall fade away, the sun himself
Grow dim with age, and nature sink in years.
Addison.

In a good old age.
Old Testament.

His hair just grizzled
As in a green old age.
Dryden.

The Pyramids themselves, doting with age, have forgotten the names of their founders.

Fuller.

Alone.

So lonely 'twas, that God himself
Scarce seemed there to be.

Coleridge.

Like one that on a lonesome road
Doth walk in fear and dread,
And, having once turned round, walks on
And turns no more his head,
Because he knows a frightful fiend
Doth close behind him tread.

Coleridge.

Alone!—that worn-out word,
So idly, and so coldly heard;
Yet all that poets sing, and grief hath known,
Of hopes laid waste, knells in that word—ALONE!

Bulwer Lytton.

Ambition.

When that the poor have cried, Cæsar hath wept:
Ambition should be made of sterner stuff.

Shakspere.

I have no spur
To prick the sides of my intent; but only
Vaulting ambition, which o'erleaps itself,
And falls on the other.

Shakspere.

Here we may reign secure, and in my choice
To reign is worth ambition, though in hell:
Better to reign in hell, than serve in heaven.

Milton.

Angels.

O woman! lovely woman! nature made thee
To temper man; we had been brutes without you.
Angels are painted fair, to look like you:
There's in you all that we believe in heaven:
Amazing brightness, purity, and truth,
Eternal joy, and everlasting love.

Otway.

He pass'd the flaming bounds of place and time:
The living throne, the sapphire blaze,
Where angels tremble while they gaze,
He saw; but, blasted with excess of light,
Closed his eyes in endless night.

Gray.

Argument.

I have found you an argument; I am not obliged to find you an understanding.

Johnson.

It would be argument for a week, laughter for a month, and a good jest forever.

Shakspere.

He draweth out the thread of his verbosity finer than the staple of his argument.

Shakspere.

Babe.

A babe in a house is a well-spring of pleasure.

Tupper.

And pity, like a naked, new-born babe.

Shakspere.

Oh! when a Mother meets on high
The babe she lost in infancy,
Hath she not then, for pains and fears,
The day of woe, the watchful night,
For all her sorrow, all her tears,
An over-payment of delight?

Southey.

Battle.

And leaving in battle no blot on his name,
Look proudly to heaven from the death-bed of fame.

Campbell.

Ye mariners of England!
That guard our native seas,
Whose flag has braved a thousand years
The battle and the breeze!

Campbell.

When the battle rages loud and long,
And the stormy winds do blow.

Campbell.

And little of this great world can I speak,
More than pertains to feats of broil and battle.

Shakspere.

But to the hero, when his sword
Has won the battle for the free,
Thy voice sounds like a prophet's word.

Halleck.

Wut's words to them whose faith and truth
On War's red techstone rang true metal,
Who ventured life an' love an' youth
For the gret prize o' death in battle?

Lowell.

Beauty.

So stands the statue that enchants the world,
So bending tries to veil the matchless boast,
The mingled beauties of exulting Greece.

Thomson.

In naked beauty, more adorn'd,
More lovely, than Pandora.

Milton.

She walks in beauty, like the night
Of cloudless climes and starry skies;
And all that's best of dark and bright
Meet in her aspect and her eyes;
Thus mellow'd to that tender light
Which Heaven to gaudy day denies.

Byron.

Blessing.

Blessings be with them, and eternal praise,
Who gave us nobler loves, and nobler cares,
The Poets, who on earth have made us heirs
Of truth and pure delight by heavenly lays!

Wordsworth.

Blessings on him who invented sleep, the mantle that covers all human thoughts, the food that appeases hunger, the drink that quenches thirst, the fire that warms cold, the cold that moderates heat, and lastly, the general coin that purchases all things, the balance and weight that equals the shepherd with the king, and the simple with the wise.

Cervantes.

Hush, my dear, lie still and slumber!
Holy angels guard thy bed!
Heavenly blessings without number
Gently falling on thy head.

Watts.

Blush.

But 'neath yon crimson tree,
Lover to listening maid might breathe his flame,
Nor mark, within its roseate canopy,
Her blush of maiden shame.
Bryant.

We grieved, we sighed, we wept: we never blushed before.
Cowley.

This is the state of man: to-day he puts forth
The tender leaves of hope, to-morrow blossoms,
And bears his blushing honors thick upon him:
The third day, comes a frost, a killing frost;
And—when he thinks, good easy man, full surely
His greatness is a ripening—nips his root,
And then he falls.
Shakspere.

To the nuptial bower I led her, blushing like the morn.
Milton.

Burden.

Every man shall bear his own burden.
New Testament.

For other things mild Heav'n a time ordains,
And disapproves that care, though wise in show,
That with superfluous burden loads the day,
And, when God sends a cheerful hour, refrains.
Milton.

And the gay grandsire, skill'd in gestic lore,
Has frisk'd beneath the burden of threescore.
Goldsmith.

Out from the heart of Nature rolled
The burdens of the Bible old.
Emerson.

Business.

A dinner lubricates business.
Lord Stowell.

Seest thou a man diligent in his business? he shall stand before kings; he shall not stand before mean men.
Old Testament.

Of seeming arms to make a short essay,
Then hasten to be drunk, the business of the day.
Dryden.

Despatch is the soul of business.
Chesterfield.

How doth the little busy bee
Improve each shining hour?
Watts.

The armorers, accomplishing the knights,
With busy hammers closing rivets up,
Give dreadful note of preparation.
Shakspere.

Calm.

Rest here, distrest by poverty no more,
Here find that calm thou gav'st so oft before;
Sleep, undisturb'd, within this peaceful shrine,
Till angels wake thee with a note like thine!
Johnson.

Ne'er saw I, never felt, a calm so deep!
The river glideth at his own sweet will;
Dear God! the very houses seem asleep;
And all that mighty heart is lying still!
Wordsworth.

And, through the heat of conflict, keeps the law
In calmness made, and sees what he foresaw.
Wordsworth.

Care.

Care to our coffin adds a nail, no doubt,
And every grin, so merry, draws one out.
Welcot.

Let the world glide, let the world go:
A fig for care, and a fig for woe!
If I can't pay, why, I can owe,
And death makes equal the high and low.
Heywood.

Shall I, wasting in despair,
Die because a woman's fair?
Or make pale my cheeks with care,
'Cause another's rosy are?
Be she fairer than the day,
Or the flow'ry meads in May,
If she be not so to me,
What care I how fair she be?
Wither.

Hang sorrow! care will kill a cat,
And threescore let's be merry.
Wither.

If the heart of a man is depress'd with cares,
The mist is dispell'd when a woman appears.
Gay.

Charity.

An old man, broken with the storms of state,
Is come to lay his weary bones among ye;
Give him a little earth for charity!
Shakspere.

In Faith and Hope the world will disagree,
But all mankind's concern is Charity.
Pope.

Charity shall cover the multitude of sins.
New Testament.

Careless their merits or their faults to scan,
His pity gave ere charity began.
Goldsmith.

Chastity.

Early, bright, transient, chaste, as the morning,
She sparkled, was exhaled, and went to heaven.
Young.

As chaste as unsunned snow.
Shakspere.

That chastity of honor which felt a stain like a wound.
Burke.

So dear to Heaven is saintly chastity,
That, when a soul is found sincerely so,
A thousand liveried angels lackey her,
Driving far off each thing of sin and guilt.
Milton.

Childhood.

Ah, happy hills! ah, pleasing shade!
Ah, fields belov'd in vain!
Where once my careless childhood stray'd,
A stranger yet to pain!
Gray.

I have had playmates, I have had companions,
In my days of childhood, in my joyful school-days:
All are gone, the old familiar faces.
Lamb.

The childhood shows the man
As morning shows the day.
Milton.

The children like olive plants round about thy table.
Old Testament.

By sports like these are all their cares beguil'd;
The sports of children satisfy the child.
Goldsmith.

Dancing.

Midnight shout and revelry,
Tipsy dance and jollity.
Milton.

On with the dance! let joy be unconfined.
Byron.

And bear about the mockery of woe
To midnight dances and the public show.
Pope.

Doubt.

No hinge, nor loop
To hang a doubt on.
Shakspere.

Doubt thou the stars are fire,
Doubt that the sun doth move;
Doubt truth to be a liar,
But never doubt I love.
Shakspere.

And better had they ne'er been born,
Who read to doubt, or read to scorn.
Scott.

Dreams.

Hunt half a day for a forgotten dream.
Wordsworth.

Who has not felt how sadly sweet
The dream of home, the dream of home,
Steals o'er the heart, too soon to fleet,
When far o'er sea or land we roam?
Moore.

True, I talk of dreams,
Which are the children of an idle brain,
Begot of nothing but vain fantasy.
Shakspere.

Dust.

How lov'd, how honor'd once, avails thee not,
To whom related, or by whom begot:
A heap of dust alone remains of thee;
'Tis all thou art, and all the proud shall be!
Pope.

The knight's bones are dust,
And his good sword rust;
His soul is with the saints, I trust.
Coleridge.

Earth.

Earth felt the wound; and Nature from her seat,
Sighing through all her works, gave signs of woe,
That all was lost.
Milton.

The common growth of Mother Earth
Suffices me—her tears, her mirth,
Her humblest mirth and tears.
Wordsworth.

Earth, with her thousand voices, praises God.
Coleridge.

Ease.

How blest is he who crowns, in shades like these,
A youth of labor with an age of ease!
Goldsmith.

Shall I not take mine ease in mine inn?
Shakspere.

Nor peace nor ease the heart can know,
Which, like the needle true,
Turns at the touch of joy or woe,
But, turning, trembles too.
Mrs. Greville.

Error.

To err is human, to forgive divine.
Pope.

Truth crushed to earth shall rise again;
The eternal years of God are hers;
But Error, wounded, writhes with pain,
And dies among his worshippers.
Bryont.

Eternity.

'Tis the divinity that stirs within us;
'Tis Heaven itself that points out an hereafter,
And intimates eternity to man.
Eternity! thou pleasing, dreadful thought!
Addison.

But there are wanderers o'er Eternity
Whose bark drives on and on, and anchor'd ne'er shall be.
Byron.

Faith.

Happy he
With such a mother! faith in womanhood
Beats with his blood, and trust in all things high
Comes easy to him, and, though he trip and fall,
He shall not blind his soul with clay.
Tennyson.

One in whom persuasion and belief
Had ripened into faith, and faith become
A passionate intuition.
Wordsworth.

Faith is the substance of things hoped for, the evidence of things not seen.
New Testament.

Farewell.

I only know we loved in vain—
I only feel—Farewell!—Farewell!
Byron.

Oh, now, forever,
Farewell the tranquil mind! farewell content!
Farewell the plumed troop, and the big wars,
That make ambition virtue! Oh, farewell!
Farewell the neighing steed, and the shrill trump,
The spirit-stirring drum, th' ear-piercing fife,
The royal banner, and all quality,
Pride, pomp and circumstance of glorious war!
And, O you mortal engines, whose rude throats
The immortal Jove's dread clamors counterfeit,
Farewell! Othello's occupation's gone!
Shakspere.

Folly.

A fool must now and then be right by chance.
Cowper.

For fools rush in where angels fear to tread.
Pope.

Of all causes which conspire to blind
Man's erring judgment, and misguide the mind,
What the weak head with strongest bias rules,
Is pride, the never-failing vice of fools.
Pope.

Forgetfulness.

Go, forget me—why should sorrow
O'er that brow a shadow fling?
Go, forget me—and to-morrow
Brightly smile and sweetly sing.
Smile—though I shall not be near thee;
Sing—though I shall never hear thee.
Wolfe.

Freedom.

We must be free or die, who speak the tongue
That Shakspere spake; the faith and morals hold
Which Milton held.
Wordsworth.

I am as free as nature first made man,
Ere the base laws of servitude began,
When wild in the woods the noble savage ran.
Dryden.

No. Freedom has a thousand charms to show,
That slaves, howe'er contented, never know.
Cowper.

That this nation, under God, shall have a new birth of freedom, and that government of the people, by the people, for the people, shall not perish from the earth.
Abraham Lincoln.

Glory.

'Tis beauty calls, and glory leads the way.
Lee.

Avoid shame, but do not seek glory—nothing so expensive as glory.
Sydney Smith.

I have touch'd the highest point of all my greatness,
And from that full meridian of my glory
I haste now to my setting: I shall fall
Like a bright exhalation in the evening,
And no man see me more.
Byron.

God.

Had I but serv'd my God with half the zeal
I serv'd my king, he would not in mine age
Have left me naked to mine enemies.
Shakspere.

Just are the ways of God,
And justifiable to men;
Unless there be who think not God at all.
Milton.

God helps them that help themselves.
Franklin.

Lo, the poor Indian! whose untutored mind
Sees God in clouds, or hears him in the wind;
His soul proud Science never taught to stray
Far as the solar walk or milky way.
Pope.

God sendeth, and giveth, both mouth and the meat.
Thomas Tusser.

Grief.

Every one can master a grief but he that has it.
Shakspere.

Happiness.

Domestic Happiness, thou only bliss
Of Paradise that has surviv'd the fall!
Cowper.

O happiness! our being's end and aim!
Good, pleasure, ease, content! whate'er thy name:
That something still which prompts th' eternal sigh,
For which we bear to live, or dare to die.
Pope.

How bitter a thing it is to look into happiness through another man's eyes!
Shakspere.

All who joy would win
Must share it;
Happiness was born a twin.
Byron.

Heaven.

'Tis heaven alone that is given away;
'Tis only God may be had for the asking.
Lowell.

Thus, when the lamp that lighted
The traveller at first goes out,
He feels awhile benighted,
And looks around in fear and doubt.
But soon, the prospect clearing,
By cloudless starlight on he treads,
And thinks no lamp so cheering
As that light which heaven sheds.
Moore.

Sit, Jessica; look, how the floor of heaven
Is thick inlaid with patines of bright gold;
There's not the smallest orb which thou behold'st
But in his motion like an angel sings,
Still quiring to the young-eyed cherubins:
Such harmony is in immortal souls;
But, whilst this muddy vesture of decay
Doth grossly close it in, we cannot hear it.
Shakspere.

Heaven open'd wide
Her ever-during gates, harmonious sound
On golden hinges moving.
Milton.

To heirs unknown descends th' unguarded store,
Or wanders, heaven-directed, to the poor.
Pope.

Hell.

Hell is paved with good intentions.
Johnson.

Which way shall I fly,
Infinite wrath, and infinite despair?
Which way I fly is hell; myself am hell;
And, in the lowest deep, a lower deep,
Still threat'ning to devour me, opens wide,
To which the hell I suffer seems a heaven.
Milton.

Full little knowest thou that hast not tried,
What hell it is in suing long to bide;
To loose good dayes that might be better spent,
To waste long nights in pensive discontent;
To speed to-day, to be put back to-morrow;
To feed on hope, to pine with feare and sorrow.
Spenser.

Honesty.

Every honest miller has a golden thumb.
Old Saying.

Hope.

Thus heavenly hope is all serene,
But earthly hope, how bright soe'er,
Still fluctuates o'er this changing scene,
As false and fleeting as 'tis fair.
Heber.

Cease, every joy, to glimmer on my mind,
But leave—oh! leave the light of Hope behind!
What though my winged hours of bliss have been,
Like angel-visits, few and far between.
Campbell.

Hope! thou nurse of young desire.
Bickerstaff.

Hope springs eternal in the human breast:
Man never is, but always to be blest.
The soul, uneasy, and confin'd from home,
Rests and expatiates in a life to come.
Pope.

Sail on, O Ship of State!
Sail on, O Union, strong and great!
Humanity with all its fears,
With all the hopes of future years,
Is hanging breathless on thy fate!
Longfellow.

Idleness.

How various his employments, whom the world
Calls idle; and who justly in return
Esteems that busy world an idler too!
Cowper.

In idle wishes fools supinely stay;
Be there a will, and wisdom finds a way.
Crabbe.

Immortality.

There is no death! an angel form
Walks o'er the earth with silent tread,
He bears our best-loved things away,
And then we call them "dead."
Harvey.

There is no death! What seems so is transition,
This life of mortal breath
Is but a suburb of the life elysian,
Whose portal we call death.
Longfellow.

Though inland far we be,
Our souls have sight of that immortal sea
Which brought us hither.
Wordsworth.

Our dissatisfaction with any other solution is the blazing evidence of immortality.
Emerson.

Innocence.

An age that melts in unperceiv'd decay,
And glides in modest innocence away.
Johnson.

He's armed without that's innocent within.
Pope.

Jealousy.

Trifles, light as air,
Are to the jealous confirmations strong
As proofs of Holy Writ.
Shakspere.

Love is strong as death; jealousy is cruel as the grave.
Old Testament.

First, then, a woman will, or won't, depend on't;
If she will do't, she will; and there's an end on't.
But if she won't, since safe and sound your trust is,
Fear is affront, and jealousy injustice.
Hill.

Jesting.

Of all the griefs that harass the distrest,
Sure the most bitter is a scornful jest.
Johnson.

A jest's prosperity lies in the ear
Of him that hears it, never in the tongue
Of him that makes it.
Shakspere.

Haste thee, Nymph, and bring with thee
Jest, and youthful Jollity,
Quips, and Cranks, and wanton Wiles,
Nods, and Becks, and wreathed Smiles.
Milton.

Joy.

And e'en while fashion's brightest arts decoy,
The heart, distrusting, asks if this be joy.
Goldsmith.

Reason's whole pleasure, all the joys of sense,
Life in three words—health, peace and competence.
Pope.

Silence is the perfectest herald of joy: I were but little happy, if I could say how much.
Shakspere.

Bliss in possession will not last;
Remember'd joys are never past;
At once the fountain, stream and sea,
They were, they are, they yet shall be
Montgomery.

There's not a joy the world can give like that it takes away.
Byron.

From our own selves our joys must flow,
And that dear hut—our home.
Colton.

Oh, the Joys that came down shower-like,
Of Friendship, Love and Liberty,
Ere I was old!
Coleridge.

Justice.

Fiat Justitia ruat coelum.
Terence.

We but teach
Bloody instructions, which, being taught, return
To plague the inventor. This even-handed justice
Commends the ingredients of our poison'd chalice
To our own lips.
Shakspere.

What stronger breastplate than a heart untainted?
Thrice is he arm'd that hath his quarrel just;
And he but naked, though lock'd up in steel,
Whose conscience with injustice is corrupted.
Shakspere.

Between two hawks, which flies the higher pitch;
Between two dogs, which hath the deeper mouth;
Between two horses, which doth bear him best;
Between two girls, which hath the merriest eye—
I have, perhaps, some shallow spirit of judgment;
But in these nice sharp quillets of the law,
Good faith, I am no wiser than a daw.
Shakspere.

Kindness.

Assume a virtue, if you have it not.
I must be cruel, only to be kind:
Thus bad begins, and worse remains behind.
Shakspere.

Howe'er it be, it seems to me,
'Tis only noble to be good.
Kind hearts are more than coronets,
And simple faith than Norman blood.
Tennyson.

And kind as kings upon their coronation day.
Dryden.

Yet do I fear thy nature:
It is too full o' the milk of human kindness.
Shakspere.

The King.

Not all the waters in the rough, rude sea
Can wash the balm from an anointed king.
Shakspere.

A man may fish with the worm that hath eat of a king; and eat of the fish that hath fed of that worm.
Shakspere.

Ay, every inch a king.
Shakspere.

The king's name is a tower of strength.
Shakspere.

The right divine of kings to govern wrong.
Shakspere.

Kissing.

Be plain in dress, and sober in your diet;
In short, my deary: kiss me and be quiet.
Montague.

Then come kiss me, sweet-and-twenty.
Shakspere.

O Love, O fire! once he drew
With one long kiss my whole soul through
My lips, as sunlight drinketh dew.
Tennyson.

The kiss, snatched hasty from the sidelong maid.
Thomson.

A long, long kiss, a kiss of youth and love.
Byron.

Knavery.

Now will I show myself to have more of the serpent than the dove; that is, more knave than fool.
Marlowe.

Whip me such honest knaves.
Shakspere.

Knowledge.

Knowledge is of two kinds. We know a subject ourselves, or we know where we can find information upon it.
Johnson.

Half our knowledge we must snatch, not take.
Pope.

Knowledge is power.
Bacon.

A wise man is strong; yea, a man of knowledge increaseth strength.
Old Testament.

Histories make men wise; poets, witty; the mathematics, subtle; natural philosophy, deep; morals, grave; logic and rhetoric, able to contend.
Bacon.

Labor.

Man goeth forth unto his work and to his labor until the evening.
Old Testament.

Honest labor bears a lovely face.
Dekker.

So he with difficulty and labor hard
Mov'd on, with difficulty and labor he.
Milton.

The laborer is worthy of his hire.
New Testament.

The Ladies.

A lion among ladies is a most dreadful thing.
Shakspere.

If ladies be but young and fair,
They have the gift to know it.
Shakspere.

Ladies, whose bright eyes
Rain influence, and judge the prize.
Milton.

And when a lady's in the case,
You know all other things give place.
Gay.

The Land.

Ill fares the land, to hastening ills a prey,
When wealth accumulates and men decay;
Princes and lords may flourish and may fade,
A breath can make them as a breath has made,
But an honest peasantry, a country's pride,
When once destroyed, can never be supplied.
Goldsmith.

Breathes there the man, with soul so dead,
Who never to himself hath said,
This is my own, my native land!
Whose heart hath ne'er within him burned,
As home his footsteps he hath turned
From wandering on a foreign strand?
Scott.

There's nae sorrow there, John,
There's neither cauld nor care, John,
The day is aye fair,
In the land o' the leal.
Lady Nairne.

Laughter.

They laugh that win.
Shakspere.

There was a laughing Devil in his sneer.
Byron.

You hear that boy laughing?—you think he's all fun;
But the angels laugh, too, at the good he has done;
The children laugh loud as they troop to his call,
And the poor man that knows him laughs loudest of all!
Holmes.

And Laughter holding both his sides.
Milton.

The Law.

1 *Clo.* Argal, he that is not guilty of his own death shortens not his own life.
2 *Clo.* But is this law?
1 *Clo.* Ay, marry, is't; crowner's-quest law.
Shakspere.

When law ends, tyranny begins.
Pitt.

No man e'er felt the halter draw,
With good opinion of the law.
Trumbull.

Of Law there can be no less acknowledged, than that her seat is the bosom of God, her voice the harmony of the world: all things in heaven and earth do her homage, the very least as feeling her care, and the greatest as not exempted from her power.
Hooker.

The law is a sort of hocus-pocus science, that smiles in yer face while it picks yer pocket; and the glorious uncertainty of it is of mair use to the professors than the justice of it.
Macklin.

Learning.

Some for renown on scraps of learning dote,
And think they grow immortal as they quote.
Young.

With just enough of learning to misquote.
Byron.

Liberty.

Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery? Forbid it Almighty God! I know not what course others may take; but, as for me, give me liberty, or give me death.
Patrick Henry.

Liberty's in every blow!
Let us do or die.
Burns.

O liberty! liberty! how many crimes are committed in thy name!
Mme. Roland.

Behold! in liberty's unclouded blaze
We lift our heads, a race of other days.
Sprague.

Life.

I do not set my life at a pin's fee.
Shakspere.

The world's a bubble, and the life of man
Less than a span.
Bacon.

We are such stuff
As dreams are made on: and our little life
Is rounded with a sleep.
Shakspere.

A sacred burden is this life ye bear,
Look on it, lift it, bear it solemnly,
Stand up and walk beneath it steadfastly.
Fail not for sorrow, falter not for sin,
But onward, upward, till the goal ye win.
Kemble.

Life's but a means unto an end; that end
Beginning, mean and end to all things—God.
Bailey.

That life is long which answers life's great end.
Young.

Our life is but a winter day
Some only breakfast and away
others to dinner stay
and are full fed
the oldest man but sups
and goes to bed
large is his debt
that lingers out the day
he that goes soonest
has the least to pay.
Epitaph.

Love.

A mighty pain to love it is,
And 'tis a pain that pain to miss;
But of all pain, the greatest pain
It is to love, but love in vain.
Cowley.

Love looks not with the eyes, but with the mind,
And therefore is wing'd Cupid painted blind.
Shakspere.

Mightier far
Than strength of nerve or sinew, or the sway
Of magic potent over sun and star,
Is Love, though oft to agony distrest,
And though his favorite seat be feeble woman's breast.
Wordsworth.

But to see her was to love her,
Love but her and love forever.
Burns.

Had we never loved sae kindly,
Had we never loved sae blindly,
Never met or never parted,
We had ne'er been broken-hearted.
Burns.

Men have died from time to time and worms have eaten them, but not from love.
Shakspere.

Oh, my luve's like a red, red rose,
That's newly sprung in June,
Oh, my luve's like a melodie
That's sweetly played in tune.
Burns.

Alas! the love of woman! it is known
To be a lovely and a fearful thing.
Byron.

Man's love is of man's life a thing apart,
'Tis woman's whole existence.
Byron.

For stony limits cannot hold love out.
Shakspere.

Madness.

Great wit is sure to madness near allied,
And thin partitions do their bounds divide.
Dryden.

This is very midsummer madness.
Shakspere.

Though this be madness, yet there's method in't.
Shakspere.

To be wroth with one we love
Doth work like madness on the brain.
Coleridge.

And moody madness laughing wild,
Amid severest woe.
Gray.

Cure her of that:
Canst thou not minister to a mind diseas'd,
Pluck from the memory a rooted sorrow,
Raze out the written troubles of the brain?
Shakspere.

Maidenhood.

Maidens, like moths, are ever caught by glare,
And Mammon wins his way where Seraphs might despair.
Byron.

The maid who modestly conceals
Her beauties, while she hides, reveals;
Give but a glimpse, and fancy draws
Whate'er the Grecian Venus was.
Edward Moore.

She dwelt among the untrodden ways
Beside the spring of Love,
A maid whom there were none to praise
And very few to love.
Wordsworth.

And when once the young heart of a maiden is stolen,
The maiden herself will steal after it soon.
Moore.

Standing with reluctant feet
Where the brook and river meet,
Womanhood and childhood fleet!
Longfellow.

Wretched un-idea'd girls.
Johnson.

Man.

An honest man's the noblest work of God.
Pope.

A very unclubable man.
Johnson.

Before man made us citizens, great Nature made us men.
Lowell.

I dare do all that may become a man;
Who dares do more is none.
Shakspere.

Adam the goodliest man of men since born
His sons; the fairest of her daughters Eve.
Milton.

For contemplation he and valor form'd,
For softness she and sweet attractive grace;
He for God only, she for God in him.
His fair large front and eyes sublime declar'd
Absolute rule.
Milton.

Like leaves on trees the race of man is found,
Now green in youth, now withering on the ground:
Another race the following spring supplies;
They fall successive, and successive rise.
Pope.

All the world's a stage
And all the men and women merely players;
They have their exits and their entrances;
And one man in his time plays many parts—
His acts being seven ages. At first, the Infant,
Mewling and puking in the nurse's arms.
Then the whining School-boy, with his satchel
And shining morning face, creeping like snail
Unwillingly to school. And then the Lover,
Sighing like furnace, with a woful ballad
Made to his mistress' eyebrow. Then a Soldier,
Full of strange oaths, and bearded like the pard;
Jealous in honor, sudden and quick in quarrel,
Seeking the bubble reputation
Even to the cannon's mouth. And then the Justice,
In fair round belly with good capon lin'd,
With eyes severe and beard of formal cut,
Full of wise saws and modern instances—
And so he plays his part. The sixth age shifts
Into the lean and slipper'd Pantaloon,
His youthful hose well sav'd, a world too wide
For his shrunk shank; and his big manly voice,
Turning again toward childish treble, pipes
And whistles in his sound. Last scene of all,
That ends this strange, eventful history,
Is second childishness and mere oblivion;
Sans teeth, sans eyes, sans taste, sans—everything.
Shakspere.

Marriage.

Choose not alone a proper mate,
But proper time to marry.
Cooper.

Let me not to the marriage of true minds
Admit impediments: love is not love
Which alters when it alteration finds.
Shakspere.

How much the wife is dearer than the bride.
Lyttelton.

Such duty as the subject owes the prince,
Even such a woman oweth to her husband.
Shakspere.

You are my true and honorable wife;
As dear to me as are the ruddy drops
That visit my sad heart.
Shakspere.

With secret course, which no loud storms annoy,
Glides the smooth current of domestic joy.
Johnson.

Is not marriage an open question when it is alleged from the beginning of the world that such as are in the institution wish to get out, and such as are out wish to get in?
R. W. Emerson.

She what was honor knew,
And with obsequious majesty approv'd
My pleaded reason. To the nuptial bower
I led her, blushing like the morn: all heaven,
And happy constellations on that hour
Shed their selectest influence; the earth
Gave sign of gratulation, and each hill;
Joyous the birds; fresh gales and gentle airs
Whisper'd it to the woods, and from their wings
Flung rose, flung odors from the spicy shrub.
Milton.

Melancholy.

Sweet bird, that shunn'st the noise of folly,
Most musical, most melancholy!
Milton.

And, with a green and yellow melancholy,
She sat, like Patience on a monument,
Smiling at grief.
Shakspere.

Go—you may call it madness, folly;
You shall not chase my gloom away!
There's such a charm in melancholy
I would not, if I could, be gay.
Rogers.

There's naught in this life sweet.
If man were wise to see't,
But only melancholy;
Oh, sweetest Melancholy!
Fletcher.

The melancholy days are come, the saddest of the year,
Of wailing winds, and naked woods, and meadows brown and sear.
Bryant.

Memory.

Time whereof the memory of man runneth not to the contrary.
Blackstone.

And, when the stream
Which overflowed the soul was passed away,
A consciousness remained that it had left,
Deposited upon the silent shore
Of memory, images and precious thoughts
That shall not die, and cannot be destroyed.
Wordsworth.

Music, when soft voices die,
Vibrates in the memory;
Odors, when sweet violets sicken,
Live within the sense they quicken.
Shelley.

This is the truth the poet sings,
That a sorrow's crown of sorrow is remembering happier things.
Tennyson.

While memory holds a seat
In this distracted globe. Remember thee?
Yea, from the table of my memory
I'll wipe away all trivial fond records.
Shakspere.

The memory of the just is blessed.
Old Testament.

Mercy.

The quality of mercy is not strain'd;
It droppeth as the gentle rain from heaven
Upon the place beneath: it is twice bless'd;
It blesseth him that gives, and him that takes:
'Tis mightiest in the mightiest: it becomes
The throned monarch better than his crown:
His sceptre shows the force of temporal power,
The attribute to awe and majesty,
Wherein doth sit the dread and fear of kings;
But mercy is above this sceptred sway.
It is enthroned in the hearts of kings.
It is an attribute to God himself,
And earthly power doth then show likest God's,
When mercy seasons justice. Therefore, Jew,
Though justice be thy plea, consider this:—
That in the course of justice none of us
Should see salvation: we do pray for mercy,
And that same prayer doth teach us all to render
The deeds of mercy.
Shakspere.

That mercy I to others show,
That mercy show to me.
Pope.

Sweet mercy is nobility's true badge.
Shakspere.

Mind.

My mind to me a kingdom is;
Such present joys therein I find
That it excels all other bliss
That earth affords or grows by kind:
Though much I want which most would have,
Yet still my mind forbids to crave.
Dyer.

My mind to me an empire is
While grace affordeth health.
Southwell.

'Tis strange the mind, that very fiery particle,
Should let itself be snuff'd out by an article.
Byron.

I, thus neglecting worldly ends, all dedicated
To closeness, and the bettering of my mind.
Shakspere.

Be ye all of one mind.
Old Testament.

Vain, very vain, my weary search to find
That bliss which only centres in the mind.
Goldsmith.

Misery.

Misery acquaints a man with strange bedfellows.
Shakspere.

Our sympathy is cold to the relation of distant misery.
Gibbon.

He gave to misery (all he had) a tear,
He gain'd from Heaven ('twas all he wished) a friend.
Gray.

In misery's darkest cavern known,
His useful care was ever nigh
Where hopeless anguish pour'd his groan,
And lonely want retired to die.
Johnson.

Modesty.

He saw her charming, but he saw not half
The charms her downcast modesty conceal'd.
Thomson.

The chariest maid is prodigal enough
If she unmask her beauty to the moon.
Shakspere.

And on their own merits modest men are dumb.
Colman.

Not stepping o'er the bounds of modesty.
Shakspere.

Thy modesty's a candle to thy merit.
Fielding.

Suit the action to the word, the word to the action, with this special observance, that you o'erstep not the modesty of nature.
Shakspere.

Money.

Put money in thy purse.
Shakspere.

Get money; still get money, boy;
No matter by what means.
Jonson.

The love of money is the root of all evil.
New Testament.

This bank-note world.
Halleck.

For what is worth in anything
But so much money as 'twill bring?
Butler.

Hath a dog money? Is it possible
A cur can lend three thousand ducats?
Shakspere.

Motherhood.

A mother is a mother still,
The holiest thing alive.
Coleridge.

Where yet was ever found a mother
Who'd give her booby for another?
Gay.

Music.

As sweet and musical
As bright Apollo's lute, strung with his hair;
And when Love speaks, the voice of all the gods
Makes heaven drowsy with the harmony.
Shakspere.

Bright gem instinct with music, vocal spark.
Wordsworth.

He makes sweet music with th' enamel'd stones,
Giving a gentle kiss to every sedge
He overtaketh in his pilgrimage.
Shakspere.

His very foot hath music in 't
As he comes up the stairs.
Mickle.

Sundays observe: think when the bells do chime
'Tis angels' music.
Herbert.

That strain again; it had a dying fall:
Oh, it came o'er my ear like the sweet south,
That breathes upon a bank of violets,
Stealing and giving odor.
Shakspere.

It will discourse most eloquent music.
Shakspere.

The man that hath no music in himself,
Nor is not mov'd with concord of sweet sounds,
Is fit for treasons, stratagems and spoils:
The motions of his spirit are dull as night,
And his affections dark as Erebus.
Let no such man be trusted.
Shakspere.

Music hath charms to soothe the savage breast,
To soften rocks, or bend a knotted oak.
Congreve.

When Music, heavenly maid, was young,
While yet in early Greece she sung.
Collins.

The music in my heart I bore
Long after it was heard no more.
Wordsworth.

Nature.

Come forth into the light of things;
Let nature be your teacher.
Wordsworth.

The course of nature is the art of God.
Young.

One touch of nature makes the whole world kin.
Shakspere.

Diseased nature sometimes breaks forth
In strange eruptions.
Shakspere.

Accuse not nature; she hath done her part:
Do thou but thine.
Milton.

Night.

Night is the time to weep;
To wet with unseen tears
Those graves of memory where sleep
The joys of other years.
Montgomery.

How beautiful is night!
A dewy freshness fills the silent air;
No mist obscures, nor cloud, nor speck, nor stain,
Breaks the serene of heaven:
In full-orbed glory, yonder moon divine
Rolls through the dark-blue depths.
Beneath her steady ray
The desert-circle spreads,
Like the round ocean, girdled with the sky.
How beautiful is night!
Southey.

Here in the body pent,
Absent from Him I roam;
Yet nightly pitch my moving tent
A day's march nearer home.
Montgomery.

O night,
And storm, and darkness! ye are wondrous strong,
Yet lovely in your strength, as is the light
Of a dark eye in woman!
Byron.

Where eldest Night
And Chaos, ancestors of Nature, hold
Eternal anarchy amidst the noise
Of endless wars, and by confusion stand.
Milton.

Murmuring, and with him fled the shades of night.
Milton.

You meaner beauties of the night,
That poorly satisfy our eyes
More by your number than your light,
You common people of the skies—
What are you when the moon shall rise?
Wolten.

Good night, good night: parting is such sweet sorrow,
That I shall say good night till it be morrow.
Shakspere.

Pain.

Rich the treasure,
Sweet the pleasure,
Sweet is pleasure after pain.
Dryden.

So when a raging fever burns,
We shift from side to side by turns,
And 'tis a poor relief we gain
To change the place, but keep the pain.
Watts.

The labor we delight in physics pain.
Shakspere.

To frown at pleasure, and to smile in pain.
Young.

Pains of love be sweeter far
Than all other pleasures are.
Dryden.

Patience.

This flower of wifely patience.
Chaucer.

The worst speak something good: if all want sense,
God takes a text and preacheth patience.
Herbert.

Like patience on a monument.
Shakspere.

Patience and sorrow strove,
Who should express her goodliest.
Shakspere.

'Tis all men's office to speak patience
To those that wring under the load of sorrow,
But no man's virtue, nor sufficiency,
To be so moral when he shall endure
The like himself.
Shakspere.

For there was never yet philosopher
That could endure the toothache patiently.
Shakspere.

Arm the obdured breast
With stubborn patience as with triple steel.
Milton.

The best of men
That e'er wore earth about him was a sufferer;
A soft, meek, patient, humble, tranquil spirit.
The first true gentleman that ever breathed.
Dekker.

Patriotism.

That man is little to be envied whose patriotism would not gain force upon the plain of Marathon, or whose piety would not grow warmer among the ruins of Iona.
Johnson.

Such is the patriot's boast, where'er we roam,
His first, best country ever is his home.
Goldsmith.

Patriotism is the last refuge of a scoundrel.
Johnson.

Who dared to love their country and be poor.
Pope.

True patriots all; for be it understood
We left our country for our country's good.
Barrington.

Oh, Heaven! he cried, my bleeding country save.
Campbell.

My country, 'tis of thee,
Sweet land of liberty—
Of thee I sing.
Samuel F. Smith.

I was born an American; I live an American, I shall die an American.
Webster.

Our country—whether bounded by the St. John's and the Sabine, or however otherwise bounded or described, and be the measurements more or less—still our country, to be cherished in all our hearts, to be defended by all our hands.
Winthrop.

Peace.

Peace be within thy walls and prosperity within thy palaces.
Old Testament.

Peace hath her victories
No less renown'd than war.
Milton.

Still in thy right hand carry gentle peace,
To silence envious tongues.
Shakspere.

There never was a good war or a bad peace.
Franklin.

Peace, peace; when there is no peace.
Old Testament.

Where peace
And rest can never dwell, hope never comes,
That comes to all.
Milton.

The inglorious arts of peace.
Marvell.

Pity.

She loved me for the dangers I had passed,
And I loved her that she did pity them.
Shakspere.

He that hath pity upon the poor lendeth unto the Lord.
Old Testament.

For pity melts the mind to love.
Dryden.

Of all the paths lead to a woman's love
Pity 's the straightest.
Beaumont and Fletcher.

And pity, like a naked new-born babe,
Striding the blast.
Shakspere.

Pity the sorrows of a poor old man,
Whose trembling limbs have borne him to your door,
Whose days are dwindled to the shortest span;
Oh! give relief, and Heaven will bless your store.
Moss.

Pleasure.

Rich the treasure,
Sweet the pleasure,
Sweet is pleasure after pain.
Dryden.

But pleasures are like poppies spread,
You seize the flower, its bloom is shed;
Or, like the snow-fall in the river,
A moment white, then melts forever.
Burns.

The Puritans hated bearbaiting, not because it gave pain to the bear, but because it gave pleasure to the spectators.
Macaulay.

A man of pleasure is a man of pains.
Young.

The soul's calm sunshine and the heartfelt joy.
Pope.

Come live with me, and be my love,
And we will all the pleasures prove
That hills and valleys, dales and fields,
Woods or steepy mountains, yields.
Marlowe.

All human race, from China to Peru,
Pleasure, howe'er disguis'd by art, pursue?
Warton.

Here Skugg
Lies snug,
As a bug
In a rug.
Franklin.

There 's little pleasure in the house
When our gudeman 's awa'.
Mickle.

No profit grows where is no pleasure ta'en;
In brief, sir, study what you most affect.
Shakspere.

Poverty.

Blessed is he that considereth the poor.
Old Testament.

Steep'd me in poverty to the very lips.
Shakspere.

He left a paper sealed up, wherein were found three articles as his last will: "I owe much, I have nothing, I give the rest to the poor."
Rabelais.

With one hand he put
A penny in the urn of poverty
And with the other took a shilling out.
Pollok.

Poor naked wretches, wheresoe'er you are,
That bide the pelting of this pitiless storm,
How shall your houseless heads and unfed sides,
Your loop'd and window'd raggedness, defend you
From seasons such as these.
Shakspere.

Thou source of all my bliss, and all my woe,
That found'st me poor at first, and keep'st me so.
Goldsmith.

Too poor for a bribe, and too proud to importune,
He hath not the method of making a fortune.
Gray.

Nor grandeur hear with a disdainful smile
The short and simple annals of the poor.
Gray.

A poor, infirm, weak and despis'd old man.
Shakspere.

Praise.

The love of praise, howe'er concealed by art,
Reigns more or less, and glows in ev'ry heart.
Young

Praise God, from whom all blessings flow;
Praise Him, all creatures here below!
Praise Him above, ye heavenly host!
Ken.

Poetic Justice, with her lifted scale,
Where, in nice balance, truth with gold she weighs,
And solid pudding against empty praise.
Pope.

Of whom to be disprais'd were no small praise.
Milton.

Green be the turf above thee,
Friend of my better days;
None knew thee but to love thee,
Nor named thee but to praise.
Halleck.

Poets lose half the praise they should have got
Could it be known what they discreetly blot.
Waller.

The sweeter sounds of woman's praise.
Macaulay.

Praise undeserved is scandal in disguise.
Pope.

The rose that all are praising
Is not the rose for me.
Bayley.

Pride.

He passed a cottage with a double coach-house,
A cottage of gentility;
And he owned with a grin
That his favorite sin
Is pride that apes humility.
Southey.

My pride fell with my fortunes.
Shakspere.

Pride in their port, defiance in their eye.
Goldsmith.

Pride goeth before destruction, and an haughty spirit before a fall.
Old Testament.

A falcon, towering in her pride of place,
Was by a mousing owl hawk'd at and killed.
Shakspere.

In pride, in reasoning pride, our error lies;
All quit their sphere, and rush into the skies.
Pride still is aiming at the blessed abodes;
Men would be angels, angels would be gods.
Pope.

And the Devil did grin, for his darling sin
Is pride that apes humility.
Coleridge.

Purity.

Unto the pure all things are pure.
New Testament.

She was good as she was fair;
None—none on earth above her!
As pure in thought as angels are,
To know her was to love her.
Rogers.

Like the stained web that whitens in the sun,
Grow pure by being purely shone upon.
Moore.

So his life has flowed
From its mysterious urn a sacred stream,
In whose calm depth the beautiful and pure
Alone are mirror'd.
Talfourd.

We understood
Her by her sight; her pure and eloquent blood
Spoke in her cheeks, and so distinctly wrought,
That one might almost say her body thought.
Donne.

The real simon pure.
Centlivre.

They say that a lion will turn and flee
From a maid in the pride of her purity,
But the maiden, if she be a wise little thing,
Will keep out of the path of the beastly king.
Anon.

Chaste as the icicle,
That 's curded by the frost from purest snow,
And hangs on Dian's temple.
Shakspere.

Quiet.

All that are lovers of virtue, . . . be quiet, and go a-Angling.
Walton.

Use three Physicians,
Still-first Dr. Quiet,
Next Dr. Mery-man
And Dr. Dyet.
Old work on Health.

But quiet to quick bosoms is a hell.
Byron.

And join with thee calm Peace and Quiet,
Spare Fast, that oft with gods doth diet.
Milton.

Study to be quiet.
New Testament.

Rain.

Violets plucked, the sweetest rain
Makes not fresh or grow again.
Fletcher.

The thirsty earth soaks up the rain,
And drinks and gapes for drink again;
The plants suck in the earth, and are
With constant drinking fresh and fair.
Cowley.

For the rain it raineth every day.
Shakspere.

He shall come down like rain upon the mown grass.
Old Testament.

Ah, do not, when my heart hath scap'd this sorrow,
Come in the rearward of a conquered woe;
Give not a windy night a rainy morrow,
To linger out a purpos'd overthrow.
Shakspere.

Reading.

Learn to read slow: all other graces
Will follow in their proper places.
Walker.

Read, mark, learn and inwardly digest.
Book of Common Prayer.

You write with ease to show your breeding,
But easy writing's cursed hard reading.
Sheridan.

Reading maketh a full man, conference a ready man, and writing an exact man.
Bacon.

What is twice read is commonly better remembered than what is transcribed.

Johnson.

And better had they ne'er been born,
Who read to doubt, or read to scorn.

Scott.

Reading what they never wrote,
Just fifteen minutes, huddle up their work,
And with a well-bred whisper close the scene.

Cowper.

Reason.

Reason is the life of the law; nay, the common law itself is nothing else but reason. . . . The law, which is perfection of reason.

Coke.

Sure, He that made us with such large discourse,
Looking before and after, gave us not
That capability and godlike reason
To rust in us unus'd.

Shakspere.

Now see that noble and most sovereign reason,
Like sweet bells jangled, out of tune and harsh.

Shakspere.

Give unto me, made lowly wise,
The spirit of self-sacrifice;
The confidence of reason give;
And in the light of truth thy bondman let me live.

Wordsworth.

Error of opinion may be tolerated where reason is left free to combat it.

Jefferson.

The ruling passion, be it what it will,
The ruling passion conquers reason still.

Pope.

The intelligible forms of ancient poets,
The fair humanities of old religion,
The power, the beauty and the majesty,
That had their haunts in dale, or piny mountain,
Or forest, by slow stream, or pebbly spring,
Or chasms and watery depths: all these have vanished;
They live no longer in the faith of reason.

Coleridge.

Religion.

To be of no church is dangerous. Religion, of which the rewards are distant and which is animated only by Faith and Hope, will glide by degrees out of the mind, unless it be invigorated and reimpressed by external ordinances, by stated calls to worship and the salutary influence of example.

Johnson.

The writers against religion, whilst they oppose every system, are wisely careful never to set up any of their own.

Burke.

A little philosophy inclineth a man's mind to atheism, but depth of philosophy bringeth men's minds about to religion.

Lord Bacon.

Revenge.

Which, if not victory, is yet revenge.

Milton.

Revenge, at first though sweet,
Bitter ere long back on itself recoils.

Milton.

That practic'd falsehood under saintly shew,
Deep malice to conceal, couch'd with revenge.

Milton.

If it will feed nothing else, it will feed my revenge.

Shakspere.

Revenge is profitable; gratitude is expensive.

Gibbon.

Sadness.

Of all tales 'tis the saddest—and more sad
Because it makes us smile.

Byron.

I had rather have a fool make me merry, than experience make me sad.

Shakspere.

Earth has no sorrow that Heaven cannot heal.

Moore.

But hushed be every thought that springs
From out the bitterness of things.

Wordsworth.

But, sad as angels for the good man's sin,
Weep to record, and blush to give it in.

Campbell.

For seldom shall she hear a tale
So sad, so tender, and so true.

Shenstone.

A sadder and a wiser man,
He rose the morrow morn.

Coleridge.

And Mecca saddens at the long delay.

Thomson.

The Sea.

They that go down to the sea in ships, that do business in great waters.

Old Testament.

I'll example you with thievery:
The sun's a thief, and with his great attraction
Robs the vast sea: the moon's an arrant thief,
And her pale fire she snatches from the sun:
The sea's a thief, whose liquid surge resolves
The moon into salt tears.

Shakspere.

'Twas when the sea was roaring
With hollow blasts of wind,
A damsel lay deploring,
All on a rock reclin'd.

Gay.

This narrow isthmus 'twixt two boundless seas,
The past, the future, two eternities!

Moore.

On life's vast ocean diversely we sail,
Reason the card, but passion is the gale.

Pope.

Roll on, thou deep and dark blue Ocean—roll!
Ten thousand fleets sweep over thee in vain;
Man marks the earth with ruin—his control
Stops with the shore.

Byron.

Shame.

And lovelier things have mercy shown
To every failing but their own;
And every woe a tear can claim,
Except an erring sister's shame.

Byron.

Oh, shame to men! devil with devil damn'd
Firm concord holds; men only disagree
Of creatures rational.

Milton.

O shame! where is thy blush!

Shakspere.

Avoid shame, but do not seek glory—nothing so expensive as glory.

Sydney Smith.

Honor and shame from no condition rise;
Act well your part, there all the honor lies.

Pope.

Men the most infamous are fond of fame,
And those who fear not guilt, yet start at shame.
Churchill.

I have mark'd
A thousand blushing apparitions
To start into her face; a thousand innocent shames,
In angel whiteness, bear away those blushes.
Shakspere.

Sighing.

A plague of sighing and grief! it blows a man up like a bladder.
Shakspere.

Sigh'd and look'd, and sigh'd again.
Dryden.

Speed the soft intercourse from soul to soul,
And waft a sigh from Indus to the Pole.
Pope.

Sigh no more, ladies, sigh no more,
Men were deceivers ever.
Shakspere.

Had sighed to many, though he loved but one.
Byron.

I stood in Venice, on the Bridge of Sighs;
A palace and a prison on each hand.
Byron.

She gave me for my pains a world of sighs.
Shakspere.

The sigh that rends thy constant heart
Shall break thy Edwin's too.
Goldsmith.

Silence.

There was a silence deep as death;
And the boldest held his breath
For a time.
Campbell.

The silent organ loudest chants
The master's requiem.
Emerson.

Come then, expressive silence, muse his praise.
Thomson.

Silence in love bewrays more woe
Than words though ne'er so witty;
A beggar that is dumb, you know,
May challenge double pity.
Raleigh.

No hammers fell, no ponderous axes rung;
Like some tall palm the mystic fabric sprung.
Majestic silence!
Heber.

Now came still evening on, and twilight gray
Had in her sober livery all things clad;
Silence accompany'd; for beast and bird,
They to their grassy couch, these to their nests,
Were slunk, all but the wakeful nightingale.
Milton.

Silence that dreadful bell! it frights the Isle
From her prosperity.
Shakspere.

Silence is the perfectest herald of joy; I were but little happy if I could say how much.
Shakspere.

Sleep.

Methought I heard a voice cry, "Sleep no more!
Macbeth does murder sleep"—the innocent sleep;
Sleep, that knits up the ravell'd sleeve of care.
Shakspere.

Thou hast been called, O Sleep! the friend of woe;
But 'tis the happy that have called thee so.
Southey.

He giveth his beloved sleep.
Old Testament.

Yet a little sleep, a little slumber, a little folding of the hands to sleep.
Old Testament.

Tired Nature's sweet restorer, balmy sleep!
Young.

Not poppy, nor mandragora,
Nor all the drowsy syrups of the East,
Shall ever medicine thee to that sweet sleep
Which thou ow'dst yesterday.
Shakspere.

On parent knees, a naked new-born child
Weeping thou sat'st while all around thee smiled;
So live, that, sinking in thy last long sleep,
Calm thou may'st smile, while all around thee weep.
Jones.

Now blessings light on him who first invented sleep: it covers a man all over, thoughts and all, like a cloak; it is meat for the hungry, drink for the thirsty, heat for the cold, and cold for the hot.
Cervantes.

Solitude.

In the desert a fountain is springing,
In the wide waste there still is a tree,
And a bird in the solitude singing,
Which speaks to my spirit of *thee*.
Byron.

I praise the Frenchman, his remark was shrewd,
How sweet, how passing sweet is solitude!
But grant me still a friend in my retreat,
Whom I may whisper, solitude is sweet.
Cowper.

He makes a solitude, and calls it peace.
Byron.

For solitude sometimes is best society,
And short retirement urges sweet return.
Milton.

That inward eye
Which is the bliss of solitude.
Wordsworth.

In solitude, where we are least alone.
Byron.

O Solitude! where are the charms
That sages have seen in thy face?
Cowper.

There is a pleasure in the pathless woods,
There is a rapture on the lonely shore,
There is society, where none intrudes,
By the deep sea, and music in its roar:
I love not Man the less, but Nature more.
Byron.

Strength.

He that wrestles with us strengthens our nerves and sharpens our skill; our antagonist is our helper.
Burke.

Spring.

Come, gentle Spring! ethereal mildness! come.
Thomson.

When Spring unlocks the flowers to paint the laughing soil.
Heber.

Sweet Spring, full of sweet days and roses,
A box where sweets compacted lie.
Herbert.

But when shall spring visit the mouldering urn?
Oh, when shall it dawn on the night of the grave?
Beattie.

Primrose, first-born child of Ver,
Merry spring-time's harbinger.
Beaumont and Fletcher.

In those vernal seasons of the year, when the air is calm and pleasant, it were an injury and sullenness against Nature not to go out and see her riches, and partake in her rejoicing with heaven and earth.
Milton.

The State.

But in the gross and scope of mine opinion,
This bodes some strange eruption to our state.
Shakspere.

What constitutes a state?
* * * * * *
Men who their duties know,
But know their rights, and, knowing, dare maintain.
* * * * * *
And sovereign law, that state's collected will,
O'er thrones and globes elate,
Sits empress, crowning good, repressing ill.
Jones.

A thousand years scarce serve to form a state;
An hour may lay it in the dust.
Byron.

Here shall the Press the People's right maintain,
Unawed by influence and unbribed by gain;
Here patriot Truth her glorious precepts draw,
Pledged to Religion, Liberty and Law.
Story.

States, as great engines, move slowly.
Bacon.

Methinks I see in my mind a noble and puissant nation rousing herself like a strong man after sleep, and shaking her invincible locks; methinks I see her as an eagle mewing her mighty youth, and kindling her undazzled eyes at the full mid-day beam.
Milton.

Talking.

Then he will talk—good gods! how he will talk!
Lee.

Who think too little, and who talk too much.
Dryden.

Let your speech be always with grace, seasoned with salt.
New Testament.

The poetry of speech.
Byron.

Just at the age 'twixt boy and youth,
When thought is speech, and speech is truth.
Scott.

Thought.

But evil is wrought by want of thought
As well as want of heart.
Hood.

They are never alone that are accompanied with noble thoughts.
Sidney.

And Thought leapt out to wed with Thought
Ere Thought could wed itself with Speech.
Tennyson.

Like thoughts whose very sweetness yieldeth proof
That they were born for immortality.
Wordsworth.

He thought as a sage, though he felt as a man.
Beattie.

Thought is deeper than all speech.
Cranch.

With curious art the brain too finely wrought
Preys on herself, and is destroyed by thought.
Churchill.

The dome of thought, the palace of the soul.
Byron.

Thought is the property of him who can entertain it, and of him who can adequately place it.
Emerson.

But words are things, and a small drop of ink,
Falling, like dew, upon a thought, produces
That which makes thousands, perhaps millions, think.
Byron.

When to the sessions of sweet silent thought
I summon up remembrance of things past.
Shakspere.

Delightful task! to rear the tender thought,
To teach the young idea how to shoot.
Thomson.

Thoughts, that voluntary move
Harmonious numbers.
Milton.

Time.

Even such is Time, that takes on trust
Our youth, our joys, our all we have,
And pays us but with age and dust;
Who in the dark and silent grave,
When we have wandered all our ways,
Shuts up the story of our days;
But from this earth, this grave, this dust,
My God shall raise me up, I trust.
Raleigh.

And panting Time toiled after him in vain.
Johnson.

The signs of the times.
New Testament.

Thus the whirligig of Time brings in his revenges.
Shakspere.

Live to be the show and gaze o' the time.
Shakspere.

The bell strikes one. We take no note of time,
But from its loss.
Young.

Gather ye rose-buds while ye may,
Old Time is still a-flying,
And this same flower, that smiles to-day,
To-morrow will be dying.
Herrick.

Time has laid his hand
Upon my heart, gently, not smiting it,
But as a harper lays his open palm
Upon his harp, to deaden its vibrations.
Longfellow.

His golden locks time hath to silver turned;
O time too swift! O swiftness never ceasing!
His youth 'gainst time and age hath ever spurned,
But spurn'd in vain; youth waneth by increasing.
Peele.

Truth.

Beauty is truth, truth beauty, that is all
Ye know on earth, and all ye need to know.
Keats.

Truth from his lips prevail'd with double sway,
And fools, who came to scoff, remain'd to pray.
Goldsmith.

No pleasure is comparable to standing on the vantage-ground of truth.
Lord Bacon.

For truth has such a face and such a mien,
As to be lov'd needs only to be seen.
Dryden.

Truth is as imposible to soil by any outward touch as is the sunbeam.
Lord Bacon.

Truth is the highest thing that man may keep.
Chaucer.

Great is truth, and mighty above all things.
Old Testament.

Truth is as impossible to be soiled by any outward touch as the sunbeam.
Milton.

Tyranny.

Necessity is the argument of tyrants, it is the creed of slaves.
Pitt.

Kings will be tyrants from policy, when subjects are rebels from principle.
Burke.

Where law ends, tyranny begins.
Pitt.

The tree of liberty only grows when watered by the blood of tyrants.
Barere.

This hand, to tyrants ever sworn the foe,
For freedom only deals the deadly blow;
Then sheathes in calm repose the vengeful blade,
For gentle peace in freedom's hallowed shade.
J. Q. Adams.

Virtue.

Know then this truth (enough for man to know),
"Virtue alone is happiness below."
Pope.

Well may your hearts believe the truths I tell;
'Tis virtue makes the bliss, where'er we dwell.
Collins.

Virtue could see to do what virtue would
By her own radiant light, though sun and moon
Were in the flat sea sunk.
Milton.

Virtue is bold, and goodness never fearful.
Shakspere.

I cannot praise a fugitive and cloistered virtue, unexercised and unbreathed, that never sallies out and sees her adversary, but slinks out of the race, where that immortal garland is to be run for not without dust and heat.
Milton.

Virtue is like precious odors, most fragrant when they are incensed or crushed.
Bacon.

War.

War, war, is still the cry—war even to the knife!
Byron.

There never was a good war or a bad peace.
Franklin.

But war's a game which, were their subjects wise,
Kings would not play at.
Cowper.

Oh, for a lodge in some vast wilderness,
Some boundless contiguity of shade,
Where rumor of oppression and deceit,
Of unsuccessful or successful war,
Might never reach me more.
Cowper.

To be prepared for war is one of the most effectual means of preserving peace.
Washington.

One to destroy is murder by the law;
And gibbets keep the lifted hand in awe;
To murder thousands takes a specious name,
War's glorious art, and gives immortal fame.
Young.

He is come to ope
The purple testament of bleeding war.
Shakspere.

Oh, wither'd is the garland of war,
The soldier's pole is fallen.
Shakspere.

The hum of either army stilly sounds,
That the fix'd sentinels almost receive
The secret whispers of each other's watch.
Fire answers fire; and through their paly flames
Each battle sees the other's umbered face.
Steed threatens steed, in high and boastful neighs
Piercing the night's dull ear; and from the tents,
The armorers accomplishing the knights,
With busy hammers closing rivets up,
Give dreadful note of preparation.
Shakspere.

Welcome.

'Tis sweet to hear the watch-dog's honest bark
Bay deep-mouthed welcome as we draw near home.
Byron.

Whoe'er has travel'd life's dull round,
Where'er his stages may have been,
May sigh to think he still has found
The warmest welcome at an inn.
Shenstone.

For I, who hold sage Homer's rule the best,
Welcome the coming, speed the going guest.
Pope.

Welcome ever smiles,
And farewell goes out sighing.
Shakspere.

Wisdom.

Wisdom is the principal thing: therefore get wisdom; and with all thy getting get understanding.
Old Testament.

The man of wisdom is the man of years.
Young.

In idle wishes fools supinely stay;
Be there a will, and wisdom finds a way.
Crabbe.

Knowledge is proud that he has learn'd so much;
Wisdom is humble that he knows no more.
Cowper.

To know
That which before us lies in daily life,
Is the prime wisdom.
Milton.

Be wisely worldly, be not worldly wise.
Quarles.

Thus we play the fools with the time, and the spirits of the wise sit on the clouds and ...ock us.
Shakspere.

Type of the wise who soar, but never roam;
True to the kindred points of Heaven and Home.
Wordsworth.

Woman.

The reason firm, the temperate will,
Endurance, foresight, strength and skill;
A perfect Woman, nobly planned,
To warn, to comfort and command.
Wordsworth.

Her air, her manners, all who saw admired;
Courteous though coy, and gentle though retired;
The joy of youth and health her eyes display'd,
And ease of heart her every look convey'd.
Crabbe.

Earth's noblest thing, a woman perfected.
Lowell.

A creature not too bright or good
For human nature's daily food;
For transient sorrows, simple wiles,
Praise, blame, love, kisses, tears and smiles.
Wordsworth.

O woman! in our hours of ease,
Uncertain, coy, and hard to please,
And variable as the shade
By the light, quivering aspen made;
When pain and anguish wring the brow,
A ministering angel thou!
Scott.

Where is the man who has the power and skill
To stem the torrent of a woman's will;
For if she will, she will, you may depend on't;
And if she won't, she won't; and there 's an end on 't.
Old Epigram.

Women, like princes, find few real friends.
Lyttelton.

Her voice was ever soft,
Gentle and low—an excellent thing in woman.
Shakspere.

Sir, a woman preaching is like a dog's walking on his hind legs. It is not done well; but you are surprised to find it done at all.
Johnson.

The world was sad—the garden was a wild,
And Man, the hermit, sighed—till woman smil'd.
Campbell.

The woman that deliberates is lost.
Addison.

He is a fool who thinks by force or skill
To turn the current of a woman's will.
Tuke.

Her children arise up and call her blessed.
Old Testament.

So well to know
Her own, that what she wills to do or say
Seems wisest, virtuousest, discreetest, best.
Milton.

My latest found,
Heaven's last, best gift, my ever new delight.
Milton.

Not she with trait'rous kiss her Savior stung,
Not she denied him with unholy tongue;
She, while apostles shrank, could danger brave,
Last at his cross and earliest at his grave.
Barrett.

Youth.

Crabbed age and youth
Cannot live together.
Shakspere.

Rejoice, O young man, in thy youth.
Old Testament.

The canker galls the infants of the spring,
Too oft before their buttons be disclosed;
And in the morn and liquid dew of youth
Contagious blastments are most imminent.
Shakspere.

He wears the rose
Of youth upon him.
Shakspere.

'Tis now the summer of your youth: time has not cropt the roses from your cheek, though sorrow long has washed them.
Edward Moore.

Fair laughs the morn, and soft the zephyr blows,
While proudly riding o'er the azure realm
In gallant trim the gilded vessel goes;
Youth on the prow, and Pleasure at the helm;
Regardless of the sweeping whirlwind's sway,
That, hush'd in grim repose, expects his ev'ning prey.
Gray.

A worm is in the bud of youth,
And at the root of age.
Cowper.

And life is thorny, and youth is vain;
And to be wroth with one we love
Doth work like madness in the brain.
Coleridge.

In the lexicon of youth, which fate reserves
For a bright manhood, there is no such word
As—*fail.*
Bulwer Lytton.

Ah! happy years! once more, who would not be a boy?
Byron.

Heroes and Heroines of Prose and Poetry.

A Compendium of the Celebrated Characters in the Literature of the World.

The name of the character is given in black letter; the name of the author and of the work from which the character is taken, in italic.

Abdiel. *Paradise Lost, Milton.* The faithful angel who opposed Satan in his revolt.

Abigail. *The Bible.* A waiting-maid.

Ablewhite, Godfrey. *Moonstone, Wilkie Collins.* A disreputable spy.

Abou Hassan. *Arabian Nights.* An Arab who was made to believe himself Caliph.

Absalom. 1. *The Bible.* The son of David, King of Israel. 2. *Absalom and Achitophel, Dryden.* A pseudonym for the Duke of Monmouth, an illegitimate son of King Charles II.

Absolute, Captain. *The Rivals, Sheridan.* The hero of the comedy, the gallant and fortunate lover.

Absolute, Sir Anthony. *The Rivals, Sheridan.* Father of Captain Absolute, a very irascible and absolute old gentleman.

Achitophel. *Absalom and Achitophel, Dryden.* The pseudonym for the Earl of Shaftesbury.

Acres, Bob. *The Rivals, Sheridan.* A cowardly boaster, the butt of the comedy.

Acrasia. *The Faery Queen, Spenser.* An old witch, the personification of Intemperance.

Adam, Bell. *Reliques, Percy.* A celebrated archer.

Adams, Parson. *Joseph Andrews, Fielding.* An eccentric, good-natured clergyman.

Adriana. *Comedy of Errors, Shakspere.* The wife of Antipholus.

Aguecheek, Sir Andrew. *Twelfth Night, Shakspere.* A coward and a fool.

Aladdin. *Arabian Nights.* The owner of a magic lamp and ring, which gave the possessor every wish he made.

Allworthy, Squire. *Tom Jones, Fielding.* A good-natured old country gentleman.

Alp. *The Siege of Corinth, Byron.* A brave and devoted man.

Amadis de Gaul. *Amadis de Gaul.* The hero of a Portuguese chivalric romance, the authorship of which is unknown. It was translated into every language in Europe.

Amelia. *Amelia, Fielding.* A lovely woman, supposed to be drawn from Fielding's own wife.

Amine. *Arabian Nights.* A wicked sorceress who changed her three sisters into hounds.

Amlet, Richard. *The Confederacy, Vanburgh.* A gambler.

Amri. *Absalom and Achitophel, Dryden.* Pseudonym for H. Finch.

Andrews, Joseph. *Joseph Andrews, Fielding.* A hero ridiculously upright and pure.

Anerley, Mary. *Mary Anerley, Blackmore.* A lovely and beautiful girl.

Apemantus. *Timon of Athens, Shakspere.* A cynic.

Arden, Enoch. *Enoch Arden, Tennyson.* A sailor, supposed drowned, who returns home to find his wife married again.

Argante. *The Faery Queen, Spenser.* A giantess.

Ariel. *The Tempest, Shakspere.* A spirit of the air, perhaps the daintiest creation of the myriad-minded poet.

Artful Dodger. *Oliver Twist, Dickens.* A young thief who understands his business.

Arthur, King. *Idyls of the King, Tennyson.* A legendary British King, who established an order of chivalry known as the Round Table, and about whom many popular legends are afloat in Wales and Western France.

Ashton, Lucy. *The Bride of Lammermoor, Scott.* A beautiful character, loved and lost by Ravenswood.

Atalanta. *Atalanta in Calydon, Swinburne.* One of Diana's maidens.

Autolycus. *Winter's Tale, Shakspere.* An intellectual sneak-thief.

Baba, Ali. *Arabian Nights.* The hero of the tale of the forty thieves, who breaks into the robbers' cave by means of the magical pass-word "Sesame."

Baba, Cassim. *Arabian Nights.* Brother of the above, who forgets the pass-word, and is captured by the robbers.

Backbite, Sir Benjamin. *School for Scandal, Sheridan.* A scandal-monger.

Bagstock, Joe. *Dombey and Son, Dickens.* A pompous fellow.

Bailey, Young. *Martin Chuzzlewit, Dickens.* A precocious youth.

Balderstone, Caleb. *Bride of Lammermoor, Scott.* The butler of Ravenswood.

Balthazar. 1. *Comedy of Errors, Shakspere.* A merchant. 2. *Much Ado about Nothing, Shakspere.* A servant.

Banquo. *Macbeth, Shakspere.* A chieftain murdered by Macbeth; later in the same play, a ghost.

Bardell, Mrs. *Pickwick Papers, Dickens.* Mr. Pickwick's landlady, who sues him for breach of promise of marriage.

Bardolph. *Henry IV., Shakspere.* A follower of Sir John Falstaff.

Barkis. *David Copperfield, Dickens.* A marrying man who eventually marries.

Bath, Major. *Amelia, Fielding.* A pompous officer.

Bayes. *The Rehearsal, Duke of Buckingham.* A pseudonym for Dryden.

Baynes, Charlotte. *Adventures of Philip, Thackeray.* The hero's sweetheart.

Bede, Adam. *Adam Bede, George Eliot.* An ideal workingman.

Belch, Sir Toby. *Twelfth Night, Shakspere.* Olivia's hard-drinking uncle.

Belford. *Clarissa Harlowe, Richardson.* The friend of Lovelace.

Belinda. *Rape of the Lock, Pope.* The heroine, whose hair is cut.

Bell, Laura. *Pendennis, Thackeray.* One of the sweetest heroines in English literature.

Bell, Peter. *Peter Bell, Wordsworth.* An extremely prosaic man.

Bellaston, Lady. *Tom Jones, Fielding.* One of Tom Jones' sweethearts.

Bellenden, Lady. *Old Mortality, Scott.* A Tory gentlewoman.

Belphoebe. *The Faery Queen, Spenser.* A pseudonym for Queen Elizabeth.

Belvidera. *Venice Preserved, Otway.* The heroine of the poem.

Benedict. *Love's Labor Lost, Shakspere.* A confirmed bachelor who was converted to matrimony by the lovely Beatrice. From this gentleman comes the name Benedict applied to married men who were not going to marry.

Bennet, Mrs. *Amelia, Fielding.* An improper character.

Benvolio. *Romeo and Juliet, Shakspere.* One of Romeo's friends.

Bertram. *All's Well That Ends Well, Shakspere.* The hero of the play, who marries Helen.

Bianca. *Othello, Shakspere.* Cassio's sweetheart.

Birch, Harvey. *The Spy, Cooper.* The chief character of the novel.

Bilfil. *Tom Jones, Fielding.* Allworthy's nephew, a tale-bearer.

Blimber, Miss Cornelia. *Dombey and Son, Dickens.* A blue-stocking governess.

Boabdil, Captain. *Every Man in His Humor, Johnson.* A boasting coward.

Boeuf, Front de. *Ivanhoe, Scott.* One of King John's followers. A ferocious scoundrel.

Boffin, Noddy. *Our Mutual Friend, Dickens.* The good-natured occupant of Boffin's Bower.

Bois Guilbert, Brian de. *Ivanhoe, Scott.* The master of the Knights Templars.

Boniface. *The Beaux' Stratagem, Farquhar.* A landlord. Hence applied to landlords generally.

Booby, Lady. *Joseph Andrews, Fielding.* One of the minor characters.

Booth. *Amelia, Fielding.* The hero of the story.

Bottom, Nick. *A Midsummer Night's Dream, Shakspere.* A ridiculous weaver with whom Titania, the queen of the fairies, is forced to fall in love by a charm.

Bounderby, Josiah. *Hard Times, Dickens.* A prosaic, matter-of-fact manufacturer.

Bowles, Tom. *Kenelm Chillingly, Bulwer.* A blacksmith.

Bowline, Tom. *Roderick Random, Smollett.* A sailor whose name has been applied to mariners ever since.

Box and Cox. *Box and Cox, Morton,* The heroes of the farce.

Bradwardine, Baron. *Waverly, Scott.* The father of Rose Bradwardine.

Bramble, Matthew. *Humphrey Clinker, Smollett.* A walking epitome of dyspepsia.

Brangtons. *Evelina, Miss Burney.* Very vulgar people.

Brass, Sally and Sampson. *Old Curiosity Shop, Dickens.* A shystering lawyer and his sister.

Brick, Jefferson. *Martin Chuzzlewit, Dickens.* A ridiculous American editor.

Bridgenorth, Major Ralph. *Peveril of the Peak, Scott.* A prominent officer in the Puritan Army.

Bridget, Mrs. *Tristram Shandy, Sterne.* Tristram's nurse.

Brown, Tom. *Tom Brown's School Days* and *Tom Brown at Oxford, Thos. Hughes.* The hero of one of the best boys' books ever written in English.

Bucket, Inspector. *Bleak House, Dickens.* A detective.

Bumble. *Oliver Twist, Dickens.* A beadle.

Caius, Doctor. *Merry Wives of Windsor, Shakspere.* Anne Page's Welsh lover.

Caliban. *The Tempest, Shakspere.* Prospero's monstrous servant.

Candor, Mrs. *The Rivals, Sheridan.* A scandal-monger.

Carker. *Dombey and Son, Dickens.* A scoundrelly clerk.

Cassio. *Othello, Shakspere.* Othello's lieutenant.

Caudle, Mrs. *Curtain Lectures, Douglas Jerrold.* An artistic scold.

Caustic, Col. *The Lounger, Mackenzie.* A satirical gentleman.

Celia. *As You Like It, Shakspere.* Rosalind's cousin.

Chadband. *Bleak House, Dickens.* A hypocrite.

Chamont. *The Orphans, Otway.* The hero of the play.

Chillingly, Kenelm. *Kenelm Chillingly, Bulwer.* The hero of the novel.

Christabel. *Christabel, Coleridge.* The heroine of the poem.

Christiana. *Pilgrim's Progress, Bunyan.* The wife of the hero Christian.

Chuzzlewit, Jonas and Martin. *Martin Chuzzlewit, Dickens.* The first a miser and murderer, the second the hero of Dickens' story.

Clare, Ada. *Bleak House, Dickens.* The wife of Carstone, and one of the most important characters in the story.

Clifford, Paul. *Paul Clifford, Bulwer.* A beatified highwayman hero.

Clinker, Humphrey. *Humphrey Clinker, Smollett.* A philosophical young man who meets very singular adventures.

Cœlebs. *Cœlebs in Search of a Wife, Hannah More.* A gentleman who has very precise ideas on the subjects of matrimony and woman.

Coldstream, Sir Charles. *Used Up, Matthews.* A fatigued and weary man of the world.

Consuelo. *Consuelo, George Sand.* The heroine of the novel, a rather inflammable young lady.

Copper Captain, The. *Rule a Wife, and Have a Wife, Beaumont and Fletcher.* A nickname applied to Peres, the boastful coward of the play.

Copperfield, David. *David Copperfield, Dickens.* The hero of the novel, supposed to be a picture of Dickens' own life and character.

Cordelia. *King Lear, Shakspere.* The faithful daughter of the King in the play.

Corinne. *Corinne, Mme. de Stael.* The heroine of de Stael's greatest work.

Costigan, Captain. *Pendennis, Thackeray.* The father of Pendennis' first sweetheart, a hard-drinking but amusing old man.

Coverly, Sir Roger de. *Spectator, Addison.* A model country gentleman of the olden time.

Crane, Ichabod. *Sleepy Hollow, Irving.* The schoolmaster in the sketch.

Crawley, Rawdon. *Vanity Fair, Thackeray.* The hero of "the novel without a hero." The husband of Becky Sharp.

Cressida. *Troilus and Cressida, Shakspere.* The heroine of the play, in love with Troilus.

Crummles, Vincent. *Nicholas Nickleby, Dickens.* A theatrical head of a theatrical family.

Crusoe, Robinson. *Robinson Crusoe, DeFoe.* The hero of the most remarkable novel ever written. It has been translated into every civilized language on the globe. The story relates Crusoe's adventures on a desert isle upon which he was cast by the sea, and is one of intense interest.

Cuttle, Captain. *Dombey and Son, Dickens.* A nautical character who indulges in a number of queer mannerisms.

Cymbeline. *Cymbeline, Shakspere.* A heroic King of Britain.

Dalgarno, Lord. *The Fortunes of Nigel, Scott.* A Scottish nobleman of bad character.

Dalgetty, Dugald. *Waverly, Scott.* A famous and well drawn soldier of fortune, whose name has become proverbial.

Deans, Davie, Effie and Jeanie. *Heart of Midlothian, Scott.* Famous characters in the story. Jeanie is the heroine.

Dedlock, Lady, and Sir Leicester. *Bleak House, Dickens.* Husband and wife, proud and unfortunate, but noble people.

Delamaine, Geoffrey. *Man and Wife, Collins.* A man of muscle.

Delphine. *Delphine, Mme. de Stael.* The heroine of the novel.

Deronda, Daniel. *Daniel Deronda, George Eliot.* The hero of the novel, one of the best character sketches which George Eliot has made.

Desdemona. *Othello, Shakspere.* The unfortunate heroine of the play, wife of the Moor Othello.

Diddler, Jeremy. *Raising the Wind, Kinny.* The prototype of all modern deadbeats.

Dimsdale, Rev. Arthur. *The Scarlet Letter, Hawthorne.* The seducer of Hester Prynne.

Dods, Meg. *St. Roman's Well, Scott.* A landlady.

Dodson and Fogg. *Pickwick Papers, Dickens.* Mrs. Bardell's attorneys in her suit against Mr. Pickwick.

Dogberry. *Much Ado about Nothing, Shakspere.* An absurd character who travesties justice.

Dombey, Florence, Mr. and Paul. *Dombey and Son, Dickens.* Characters in the novel.

Dominie, Sampson. *Guy Mannering, Scott.* An eccentric clergyman.

Don Quixote. *Don Quixote, Cervantes.* The hero of the novel. This has been described by eminent critics as the best work of fiction which the world has yet produced. It was written in Spanish by Miguel de Cervantes, as a protest against the ridiculous extravagances of what are known as Chivalric Romances. Don Quixote is the type upon which thousands of later novels have been founded. Crazed by the reading of knightly tales, he arms himself and goes out in search of adventures, on his steed Rozinante, and accompanied by his squire Sancho Panzo. These adventures are told so wittily, that the world has been laughing at them for centuries, and the book has never lost its fresh, boyish interest. The best English translation is Smollett's. Gustave Dore, the famous French artist, some years since completed a set of illustrations for Don Quixote, which have added greatly to its interest.

Dora. *David Copperfield, Dickens.* Copperfield's child-wife.

Dorimant. *The Man of Mode, Etherege.* A dandy.

Dorothea. *Middlemarch, George Eliot.* The heroine of the tale.

Dorrit, Edward and "Little." *Little Dorrit, Dickens.* The Father of the Marshalsea prison and his interesting daughter.

Drawcansir. *The Rehearsal, The Duke of Buckingham.* A bully.

Dulcinea del Toboso. *Don Quixote, Cervantes.* A country girl whom Don Quixote selects as his lady love.

Dundreary, Lord. *Our American Cousin, Taylor.* A typical and absurd English lord. The character was really created by the actor Sothern.

Edgar. *King Lear, Shakspere.* The son of Gloucester.

Emilia. *Othello, Shakspere.* Wife of Iago, the villain of the play.

Esmond, Beatrix and Henry. *Henry Esmond, Thackeray.* Heroine and hero of the novel, which is of the time of the English Revolution.

Eugenia. *The Return of the Native, Hardy.* A beautiful and unfortunate girl.

Evangeline. *Evangeline, Longfellow.* Heroine of the poem; her wanderings are told in verse that will never die.

Evans, Sir Hugh. *The Merry Wives of Windsor, Shakspere.* A Welsh clergyman.

Evelina. *Evelina, Miss Burney.* Heroine of the novel.

Eyre, Jane. *Jane Eyre, Bronte.* Heroine of the novel.

Fag. *The Rivals, Sheridan.* A servant.

Fagin. *Oliver Twist, Dickens.* The preceptor in the thieves' academy, where Oliver Twist is held a prisoner.

Faithful, Jacob. *Jacob Faithful, Marryatt.* The hero of the novel.

Falkland. *The Rivals, Sheridan.* A jealous lover of Julia's, and friend to Captain Absolute.

Falstaff, Sir John. *Henry IV. and The Merry Wives of Windsor, Shakspere.* This is Shakspere's most comic character; Queen Elizabeth was so pleased with Sir John in Henry IV. that, at her request, Shakspere composed The Merry Wives of Windsor, in order to give the fat knight a wider field for fun.

Fanny. *Under the Greenwood Tree, Hardy.* A pretty school-mistress.

Fat Boy, The. *Pickwick Papers, Dickens.* One of the minor characters in the novel, given to sleep and pie.

Faust. *Faust, Goethe.* The hero of the great German tragedy, who sells his soul to the Devil, and gets in return youth, wealth and an attendant devil, Mephistopheles. Goethe was to Germany what Shakspere was to England.

Felton, Septimius. *Septimius Felton, Hawthorne.* The mystical hero of the novel.

Ferdinand. *The Tempest, Shakspere.* Son of the King, falls in love with Prospero's daughter Miranda.

Ferrers, Endymion. *Endymion, Benjamin Disraeli.* Hero of the novel.

Figaro. *The Marriage of Figaro, Beaumarchais.* An exceedingly comical and sharp-witted barber.

Firmin, Philip. *The Adventures of Philip, Thackeray.* The hero of the novel.

Florizel. *A Winter's Tale, Shakspere.* The prince of Bohemia.

Fluellen. *Henry V., Shakspere.* A pedantic but brave Welsh officer.

Foker, Harry. *Pendennis, Thackeray.* One of the minor characters.

Foppington, Lord. *The Relapse, Van Brugh.* An idiotic dandy.

Fosco, Count. *Woman in White, Collins.* A complicated scoundrel.

Frankenstein. *Frankenstein, Mrs. Southey.* The dreadful result of the labors of a German student, who makes a man in the dissecting room out of corpses and brings him to life by galvanism. The hideous hero of the novel has a series of most blood-curdling adventures.

Friar Tuck. *Reliques, Percy.* The jolly companion of Robin Hood, the outlaw of Sherwood Forest.

Friday. *Robinson Crusoe, DeFoe.* Crusoe's savage servant.

Gadgrind, Jeremiah. *Hard Times, Dickens.* A tyrannical "practical" man.

Gamp, Sairy. *Martin Chuzzlewit, Dickens.* A comical and hard-drinking monthly nurse.

Gargantua. *Gargantua, Rabelais.* Hero of the tale.

Gaunt, Griffith. *Griffith Gaunt, Reade.* Hero of the novel.

Gay, Walter. *Dombey and Son, Dickens.* Marries Florence Dombey.

Gibbie, Goose. *Old Mortality, Scott.* A half-witted boy.

Gil Blas. *Gil Blas, Le Sage.* The hero of a very famous novel. His adventures are of the most surprising character, and are told in a most interesting manner.

Gilpin, John. *John Gilpin's Ride, Cowper.* The absurd hero of the poem.

Ginevra. *Ginevra, Rogers.* The heroine of the poem, accidentally locked in a trunk on her wedding day, and not found for years and years.

Gobbo, Launcelot. *The Merchant of Venice, Shakspere.* A merry servant.

Goneril. *King Lear, Shakspere.* The eldest daughter of the King, a traitor and an ingrate.

Gonzalo. *The Tempest, Shakspere.* An old councillor.

Gosling, Giles. *Kenilworth, Scott.* A landlord.

Grandison, Sir Charles. *Sir Charles Grandison, Richardson.* Hero of the novel.

Gray, Vivian. *Vivian Gray, Disraeli.* Hero of the novel.

Grundy, Mrs. *Speed the Plough, Morton.* An old lady who represents worldly propriety and tale-bearing.

Gulliver, Lemuel. *Gulliver's Travels, Swift.* Hero of the romance.

Hamlet. *Hamlet, Shakspere.* The melancholy Dane, hero of the play.

Harley. *The Man of Feeling, Mackenzie.* Hero of the novel.

Harlowe, Clarissa. *Clarissa Harlowe, Richardson.* Heroine of the novel.

Harris, Mrs. *Martin Chuzzlewit, Dickens.* A fictitious person invented by Sairy Gamp, for the purpose of enforcing her statements by quoting the opinions of Mrs. Harris upon the subject under discussion.

Headstone, Bradley. *Our Mutual Friend, Dickens.* A schoolmaster in love with Lizzie Hexam.

Heep, Uriah. *David Copperfield, Dickens.* A hypocrite and sneak.

Helena. *All's Well that Ends Well, Shakspere.* Heroine of the play.

Hero. *Much Ado about Nothing, Shakspere.* Daughter of Leonato.

Hexam, Lizzie. *Our Mutual Friend, Dickens.* Heroine of the novel.

Holofernes. *As You Like It, Shakspere.* A schoolmaster and pedant.

Holt, Felix. *Felix Holt, George Eliot.* Hero of the novel.

Honeyman, Charles. *The Newcomes, Thackeray.* A fashionable preacher.

Honor, Mrs. *Tom Jones, Fielding.* Sophia Western's waiting-woman.

Hopeful. *Pilgrim's Progress, Bunyan.* A pilgrim.

Horatio. *Hamlet, Shakspere.* The friend of Hamlet.

Howe, Miss. *Clarissa Harlowe, Richardson.* Clarissa's friend.

Hudibras. *Hudibras, Butler.* Hero of the poem.

Hunter, Mr. and Mrs. Leo. *Pickwick Papers, Dickens.* Minor characters in the novel.

Iago. *Othello, Shakspere.* The villain of the tragedy.

Imogen. *Cymbeline, Shakspere.* Heroine of the play.

Isabella. *Measure for Measure, Shakspere.* Heroine of the play.

Ivanhoe. *Ivanhoe, Scott.* Hero of the novel.

Jack, Col. *Col. Jack, DeFoe.* The criminal hero of the tale.

Jaffier. *Venice Preserved, Otway.* Hero of the poem.

Jaques. *As You Like It, Shakspere.* The melancholy philosopher.

Jarndyce, John. *Bleak House, Dickens.* A benevolent old gentleman.

Javert. *Les Miserables, Hugo.* A detective.

Jessica. *Merchant of Venice, Shakspere.* Shylock's daughter.

Jingle, Alfred. *Pickwick Papers, Dickens.* An amusing adventurer.

Kilmansegg, Miss. *The Golden Legend, Hood.* The golden-legged heroine of the poem.

Kitely. *Every Man in his Humor, Johnson.* A jealous husband.

Lady Bountiful. *The Beau's Stratagem, Farquhar.* A generous lady.

Laertes. *Hamlet, Shakspere.* The son of Polonius, killed by his own sword.

Lalla Rookh. *Lalla Rookh, Moore.* Heroine of the poem, to whom Feramorz relates the stories told in the romance.

Languish, Lydia. *The Rivals, Sheridan.* Heroine of the play.

Lear, King. *King Lear, Shakspere.* Hero of the play.

Leatherstocking, Natty. *Pathfinder, Deerslayer, and other novels, Cooper.* A huntsman and Indian fighter.

Legree. *Uncle Tom's Cabin, Stowe.* Slave master.

Leigh, Aurora. *Aurora Leigh, Browning.* Heroine of the romance.

Leila. *Giaour, Byron.* Heroine of the poem.

Lightwood, Mortimer. *Our Mutual Friend, Dickens.* Minor character in novel.

Lismahago, Capt. *Humphrey Clinker, Smollett.* A retired officer.

Little, Henry. *Put Yourself in His Place, Reade.* Hero of the novel.

Little Nell. *Old Curiosity Shop, Dickens.* Heroine of novel.

Locksley. *Ivanhoe, Scott.* One of Robin Hood's pseudonyms.

Long Tom Coffin. *Pilot, Cooper.* A boatman.

Lothair. *Lothair, Disraeli.* Hero of novel, supposed pseudonym for the Marquis of Bute.

Lothario. *The Fair Penitent, Rowe.* A rake.

Lovelace. *Clarissa Harlowe, Richardson.* A rake.

Lumpkin, Tony. *She Stoops to Conquer, Goldsmith.* A country squire.

Macbeth. *Macbeth, Shakspere.* Hero of the play.

Macduff. *Macbeth, Shakspere.* Rival of Macbeth.

MacIvor, Flora. *Rob Roy, Scott.* Heroine of novel.

Mackenzie, Mrs. *Newcomes, Thackeray.* A termagant widow.

Malagrother, Sir Mingo. *The Fortunes of Nigel, Scott.* An ill-natured courtier.

Malaprop, Mrs. *The Rivals, Sheridan.* A character famed for verbal blunders.

Malvolio. *Twelfth Night, Shakspere.* Olivia's conceited steward.

Manfred. *Manfred, Byron.* Hero of the tragedy.

Mantalini. *Nicholas Nickleby, Dickens.* The absurd husband of the milliner in the story.

Marchioness, The. *Old Curiosity Shop, Dickens.* Mr. Dick Swiveller's remarkable little nurse.

Margaret. *Faust, Goethe.* The heroine of the tragedy.

Marlow, Young. *She Stoops to Conquer, Goldsmith.* Hero of the play.

Medora. *The Corsair, Byron.* Heroine of the poem.

Merdle, Mr. *Little Dorrit, Dickens.* A speculator.

Meister, Wilhelm. *Wilhelm Meister, Goethe.* Hero of the novel.

Mephistopheles. *Faust, Goethe.* The Devil.

Mercutio. *Romeo and Juliet, Shakspere.* A wonderfully witty friend of Romeo's.

Micawber, Wilkins. *David Copperfield, Dickens.* A remarkable character, always waiting for something to turn up.

Miller, Daisy. *Daisy Miller, Henry James.* An alleged representative American girl.

Minna. *The Pirate, Scott.* One of the heroines of the novel.

Miranda. *The Tempest, Shakspere.* Daughter of Prospero, beloved of Ferdinand; heroine of the play.

Monimia. *The Orphan, Otway.* Heroine of the poem.

Mouldy. *Henry IV., Shakspere.* One of Falstaff's recruits.

Mucklewrath, Habbakuk. *Old Mortality, Scott.* A fanatical preacher.

Neuchatel, Adriana. *Endymion, Disraeli.* A wealthy young lady.

Newcome, Clive, Colonel, Ethel. *The Newcomes, Thackeray.* Characters in the best novel Thackeray has written.

Nickleby, Mrs. *Nicholas Nickleby, Dickens.* The exasperating mother of the hero, Nicholas.

Norna. *The Pirate, Scott.* An insane soothsayer.

Nydia. *Last Days of Pompeii, Bulwer.* A blind flower girl.

Obadiah. *Tristram Shandy, Sterne.* A servant.

Oberon. *Midsummer Night's Dream, Shakspere.* The King of Fairyland.

Ochiltree, Edie. *The Antiquary, Scott.* A beggar of prominence.

Oldbuck, Jonathan. *The Antiquary, Scott.* Hero of the novel.

Old Mortality. *Old Mortality, Scott.* A gravestone cleaner.

Olifaunt, Nigel. *The Fortunes of Nigel, Scott.* Hero of the novel.

Ophelia. *Hamlet, Shakspere.* Heroine of the tragedy.

Orville, Lord. *Evelina, Miss Burney.* Evelina's lover.

Othello. *Othello, Shakspere.* Hero of the play, a Moor, husband of Desdemona.

O'Trigger, Sir Lucius. *The Rivals, Sheridan.* A fire-eating Irishman.

Overreach, Sir Giles. *A New Way to Pay Old Debts, Massinger.* A usurer.

Page, Anna and Mrs. *The Merry Wives of Windsor, Shakspere.* Characters in the play.

Pamela. *Pamela, Richardson.* An intensely good young lady.

Pangloss. *The Heir-at-Law, Colman.* A pedantic teacher.

Pantagruel. *Pantagruel, Rabelais.* Hero of the sketch.

Partridge. *Tom Jones, Fielding.* The hero's trusty follower.

Pecksniff, Charity, Mercy, Mr. *Martin Chuzzlewit, Dickens.* Characters in the story.

Pendennis, Arthur, Helen, Major. *Pendennis, Thackeray.* Well drawn and forcible characters in the novel.

Perdita. *Winter's Tale, Shakspere.* Florizel's sweetheart.

Petruchio. *The Taming of the Shrew, Shakspere.* The hero, and husband of Katherine.

Pickle, Peregrine. *Peregrine Pickle, Smollett.* The wandering and immoral hero of the novel.

Pickwick, Samuel. *Pickwick Papers, Dickens.* Hero of the novel.

Pierre. *Venice Preserved, Otway.* A conspirator.

Pistol, Ancient. *Merry Wives of Windsor and Henry IV., Shakspere.* Falstaff's most characteristic follower.

Pleydell, Paulus. *Guy Mannering, Scott.* A lawyer.

Poins, Ned. *Henry IV., Shakspere.* A friend of Prince Hal.

Portia. *The Merchant of Venice.* Heroine of the play.

Poundlint, Peter. *Old Mortality, Scott.* A preacher.

Primrose, Dr. *Vicar of Wakefield, Goldsmith.* The Vicar of Wakefield.

Primrose, Moses. His son.

Prolius. *Two Gentlemen of Verona, Shakspere.* One of the two Gentlemen.

Proudfute. *Fair Maid of Perth, Scott.* A bonnet-maker.

Prynne, Hester. *Scarlet Letter, Hawthorne.* Heroine of novel.

Pumblechook, Uncle. *Great Expectations, Dickens.* A bully and fraud.

Pynchon, Phoebe. *House of the Seven Gables, Hawthorne.* Heroine of the novel.

Quasimodo. *Our Lady of Notre Dame, Hugo.* A monster.

Quickly, Mrs. *Henry IV., Shakspere.* The famed hostess of the Boar's Head Tavern, in Eastcheap.

Quilp. *Old Curiosity Shop, Dickens.* A vicious dwarf.

Quince, Peter. *Midsummer Night's Dream, Shakspere.* Character in the interlude.

Random, Roderick. *Roderick Random, Smollett.* Hero of the novel.

Rashleigh. *Rob Roy, Scott.* The villain of the novel.

Rasselas. *Rasselas, Dr. Johnson.* Prince of Abyssinia, hero of the tale.

Rattler, Jack. *Roderick Random, Smollett.* A nautical character.

Ravenswood. *The Bride of Lammermoor, Scott.* Hero of the novel, lover of Lucy Ashton.

Rebecca. *Ivanhoe, Scott.* A lovely Jewess.

Redgauntlet. *Redgauntlet, Scott.* Hero of the novel.

Rob Roy. *Rob Roy, Scott.* A Scottish chief, hero of the novel.

Roderigo. *Othello, Shakspere.* Iago's dupe.

Romeo. *Romeo and Juliet, Shakspere.* The hero of the play, lover of Juliet.

Sabrina. *Comus, Milton.* River nymph.

Sacripant. *Orlando Furioso, Ariosto.* King of Circassia, in love with Angelica.

Saddletree, Bartoline. *Heart of Midlothian, Scott.* A learned peddler.

Sancho Panza. *Don Quixote, Cervantes.* Worthy squire of a worthy master; the right man in the right place.

Sandford, Harry. *Sandford and Merton, Day.* Hero of the story.

Sangrado, Doctor. *Gil Blas, Le Sage.* A confirmed phlebotomist.

Scheherezade, Queen. *Arabian Nights.* The Sultaness who tells the tales.

Scrub. *The Beau's Stratagem, Farquhar.* A facetious valet.

Sedley, Amelia. *Vanity Fair, Thackeray.* An amiable woman, but of no great decision.

Sedley, Joseph. *Vanity Fair, Thackeray.* A fat, bashful East Indian.

Selim. *Bride of Abydos, Byron.* The hero.

Shafton, Sir Piercie. *The Monastery, Scott.* A pedantic courtier.

Shandy, Tristram. *Tristram Shandy, Sterne.* Hero of the story.

Sharp, Rebecca. *Vanity Fair, Thackeray.* The designing heroine.

Shylock. *Merchant of Venice, Shakspere.* A vindictive Jew.

Silvia. *Two Gentleman of Verona, Shakspere.* In love with Valentine.

Skimpole, Harold. *Bleak House, Dickens.* Always out of money.

Slipslop, Mrs. *Joseph Andrews, Fielding.* A waiting woman of doubtful character.

Slop, Doctor. *Tristram Shandy, Sterne.* An irascible physician.

Sly, Christopher. *Taming of the Shrew, Shakspere.* A drunken tinker.

Slyme, Chevy. *Martin Chuzzlewit, Dickens.* A "gent short of funds."

Smyke. *Nicholas Nickleby, Dickens.* An ill-used, poor, half-witted pupil of Squeers.

Sneerwell, Lady. *School for Scandal, Sheridan.* A gossip and back-biter.

Snodgrass, Augustus. *Pickwick Papers, Dickens.* A poetical character.

Snow, Lucy. *Villette, Charlotte Bronte.* The heroine.

Sparkler, Edmond. *Little Dorrit, Dickens.* Man of fashion.

Squeers, Wackford. *Nicholas Nickleby, Dickens.* The brutal master of Dotheboy's Hall.

Squeers, Master Wackford. *In same.* A spoiled child, the image of his father.

St. Leon. *St. Leon, William Goodwin.* Hero of the tale, has the secret of perpetual youth and the transmutation of metals.

Steerforth, James. *David Copperfield, Dickens.* Talented and profligate.

Steggs, Miss Carolina Wilhelmina Amelia. *Vicar of Wakefield, Goldsmith.* A pretender to gentility.

Stiggins, Elder. *Pickwick Papers, Dickens.* Affects pineapple rum and Mrs. Weller.

Strap, Hugh. *Roderick Random, Smollett.* Roderick's follower.

Surface, Sir Charles and Joseph. *School for Scandal, Sheridan.* The first a good-natured rake, the second a hypocrite.

Swiveller, Dick. *Old Curiosity Shop. Dickens.* A gay rattlepate and a good fellow.

Tamora. *Titus Andronicus, Shakspere.* A Gothic Queen.

Tapley, Mark. *Martin Chuzzlewit, Dickens.* Happiest when most miserable; jolly when he ought to cry.

Tappertit, Simon. *Barnaby Rudge, Dickens.* A ferocious little apprentice.

Tartuffe. *Tartuffe, Moliere.* A hypocritical character.

Teazle, Lady. *School for Scandal, Sheridan.* The heroine.

Teazle, Sir Peter. *School for Scandal, Sheridan.* The old husband of Lady Teazle.

Thersites. *Iliad, Homer, and Troilus and Cressida, Shakspere.* A foul-mouthed Greek.

Thwackum. *Tom Jones, Fielding.* A philosophical pedagogue.

Tillemina. *The Critic, Sheridan.* A maiden very much crossed in love.

Timon. *Timon of Athens, Shakspere.* A misanthrope, hero of the play.

Tinto, Dick. *Bride of Lammermoor, and St. Romans Well, Scott.* An artist.

Titania. *Midsummer Night's Dream, Shakspere.* The queen of fairies.

Titmouse, Tittlebat. *Ten Thousand a Year, Dr. Warren.* Astonished Parliament by an imitation of Chanticleer.

Tito. *Romola, George Eliot.* The handsome, but weak hero.

Todgers, Mrs. *Martin Chuzzlewit, Dickens.* The keeper of a commercial boarding-house.

Toots. *Dombey and Son, Dickens.* A simple, eccentric fellow.

Topsey. *Uncle Tom's Cabin, Mrs. Stowe.* An ignorant young slave girl.

Touchstone. *As You Like It, Shakspere.* A clown.

Touchwood, Peregrine. *St. Romans Well, Scott.* An irascible East Indian.

Tox, Miss. *Dombey and Son, Dickens.* A spinster, slightly curious.

Traddles, Tom. *David Copperfield, Dickens.* A barrister and friend of Copperfield.

Trapbois. *The Fortunes of Nigel, Scott.* A usurer.

Trim, Corporal. *Tristam Shandy, Sterne.* The follower of Uncle Toby.

Trinculo. *Tempest, Shakspere.* A jester.

Triol, Marquis. *The Pirate, Scott.* A wealthy Zealander.

Trotwood, Betsy. *David Copperfield, Dickens.* The kindest of women, but with an aversion to trespassing donkeys.

Trulliber, Parson. *Joseph Andrews, Fielding.* An ignorant clergyman.

Trunnion, Commodore Hawser. *Peregrine Pickle, Smollett.* An odd nautical character.

Tulkinghorn, Mr. *Bleak House, Dickens.* A wily solicitor.

Tulliver, Maggie. *Mill on the Floss, George Eliot.* The heroine.

Tulliver, Tom. *Mill on the Floss, George Eliot.* Her selfish, conceited brother.

Tupman, Tracy. *Pickwick Papers, Dickens.* An obese admirer of lovely women.

Turveydrop. *Bleak House, Dickens.* Dancing master and professor of deportment.

Tusher, Thomas. *Henry Esmond, Thackeray.* A sycophantic clergyman.

Twemlow, Mr. *Our Mutual Friend, Dickens.* A diner-out and friend of the Veneerings.

Twist, Oliver. *Oliver Twist, Dickens.* Hero of the novel.

Twysden, Talbott. *Philip, Thackeray.* A public officer.

Tybalt. *Romeo and Juliet, Shakspere.* Nephew of Lady Capulet, slain by Romeo.

Ulrica. *Ivanhoe, Scott.* An old witch.

Una. *The Faery Queen, Spenser.* The personification of Truth.

Uncas. *The Last of the Mohicans, Cooper.* A Mohican chief.

Uncle Toby. *Tristram Shandy, Sterne.* A noble veteran, the real hero of the story.

Uncle Tom. *Uncle Tom's Cabin, Stowe.* A pious and unfortunate slave, the hero of the novel. This book added more converts to the abolition party than any other factor. It is the most remarkable and effective American work printed.

Varden, Dolly. *Barnaby Rudge, Dickens.* The heroine of the story.

Vathek. *Vathek, Beckford.* The hero of Beckford's remarkable novel.

Vernon, Di. *Rob Roy, Scott.* The heroine of the novel.

Vholes. *Bleak House, Dickens.* A crafty lawyer.

Viola. *Twelfth Night, Shakspere.* A sweet little lady in love with Orsino.

Virgilia. *Coriolanus, Shakspere.* Wife of Coriolanus.

Virginia. *Paul and Virginia, St. Pierre.* Heroine of the novel.

Vivian. *Idyls of the King, Tennyson.* The mistress of Merlin, the Enchanter.

Wadman, Widow. *Tristram Shandy, Sterne.* The lady who seeks to decoy Uncle Toby into matrimony.

Wamba. *Ivanhoe, Scott.* A clown.

Wardle, Mr. *Pickwick Papers, Dickens.* A jolly country gentleman, friend of Mr. Pickwick.

Wegg, Silas. *Our Mutual Friend, Dickens.* The villain of the novel.

Weller, Tony and Samivel. *Pickwick Papers, Dickens.* Father and son; the latter, Mr. Pickwick's serving-man, is undoubtedly the most original and most humorous creation of Dickens' exuberant fancy.

Werther. *Sorrows of Werther, Goethe.* Hero of the tale.

Western, Squire and Sophia. *Tom Jones, Fielding.* Father and daughter, the latter the heroine of the novel.

Whiskerandos, Don Ferolo. *The Critic, Sheridan.* The lover of Tilburina.

Wickfield, Agnes. *David Copperfield, Dickens.* Heroine of the novel.

Wild, Jonathan. *Jonathan Wild, Fielding.* A famous highwayman, and afterwards a noted thieftaker of London.

Wildair, Sir Harry. *The Constant Couple, and Sir Harry Wildair, Farquhar.* The hero of both plays.

Wilfer, Bella, Lavinia, Reginald and Mrs. *Our Mutual Friend, Dickens.* One of the most entertaining family groups in English fiction. The first is the charming heroine of the novel. Lavinia is her abominable sister; Reginald, her angelic papa; while the somber background is made by the gloomy mamma, whose other name in the family is The Tragic Muse.

Wilfrid. *Rokeby, Scott.* Hero of the poem.

Williams, Caleb. *Caleb Williams, Godwin.* The hero of a very remarkable novel.

Wimble, Will. *Spectator, Addison.* Pseudonym for Thomas Morecraft.

Winkle, Rip Van. *Sketch Book, Irving.* The immortal sleeper of the Catskills.

Wishfort, Lady. *The Way of the World, Congreve.* Heroine of the play.

Worldly Wiseman, Mr. *Pilgrim's Progress, Bunyan.* One of Christian's difficulties.

Wray, Enoch. *The Village, Crabbe.* A noble old man.

Wren, Jenny. *Our Mutual Friend, Dickens.* The dolls' dressmaker.

Wronghead, Sir Francis. *The Provoked Husband, Vanburgh.* Hero of the play.

Yorick. *Tristram Shandy, Sterne.* A jester descended from the Yorick whose history is told by Hamlet.

Yseult. *Tristram and Yseult, Matthew Arnold.* A Cornish heroine of the olden time.

Zadoc. *Absolom and Achitophel, Dryden.* Pseudonym for Sancroft, Archbishop of Canterbury.

Zanoni. *Zanoni, Bulwer.* The mystical hero of the novel.

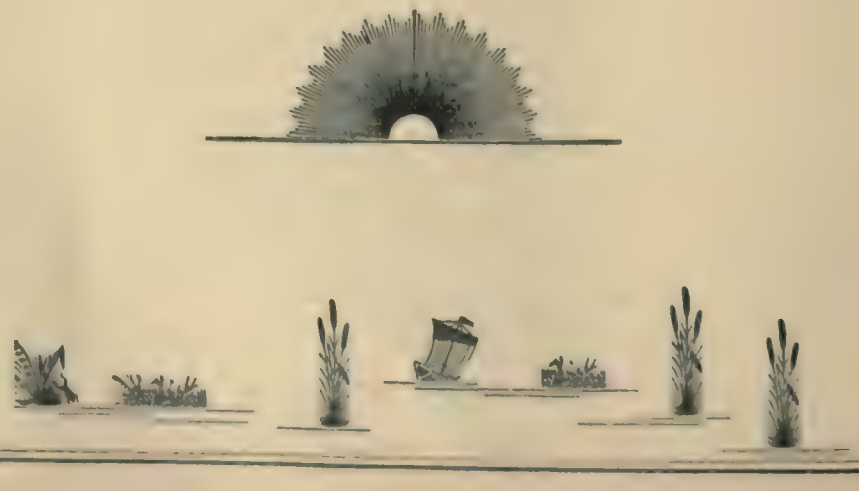
Zeluco. *Zeluco, Dr. J. Moore.* The prodigal hero of the novel.

Zobeide. *Arabian Nights.* The wife of the great Haroun al Raschid.

Zodig. *Zodig, Voltaire.* The Babylonian hero of the novel.

Zophiel. *Paradise Lost, Milton.* A swift-winged cherub.

Zuleika. *The Bride of Abydos, Byron.* Heroine of the poem.



A DICTIONARY OF NOMS DE PLUME.

THE following list of assumed names in English and American literature will be found to be the most comprehensive ever published:

ASSUMED NAME.	REAL NAME.	REPRESENTATIVE WORK.
A Country Parson	Archbish. Whately	Divinity and Logic.
A Gaol Chaplain	Rev. Erskine Neale	*Bentley's Miscellany.*
A. K. H. B.	Rev. A. K. H. Boyd	Recreations of a Country Parson.
A. L. O. E. (a lady of England)	Charlotte Tucker	City of No Cross.
A Lady	Mrs. Rundell	Domestic Cookery.
A Lady	Mrs. Anna Jamieson	Art Criticism.
A Literary Antiquary.	F. W. Fairholt	Costume in England.
A Lover of Literature	Thomas Green	Diary.
A Lincolnshire Grazier	T. Hartwell Horne	Bibliography.
A Manchester Manufacturer	Richard Cobden	Political tracts.
A Northern Man	Chas. J. Ingersoll	Political History.
A Student at Law	F. K. Hunt	The Fourth Estate.
A Travelling Bachelor	J. Fenimore Cooper	Travels.
A Trinity Man	Thomas Wright	Alma Mater, 1827.
A. N. Farmer	Rev. Isaac Wilkins	Political tracts.
A Young American	A. Slidel Mackenzie	Year in Spain.
Abimelech Coody	Julian C. Verplanck	Political tracts.
Acheta Domestica	Miss L. M. Budgen	Episodes of Insect Life.
Acton Bell	Anne Bronte	Agnes Gray.
Admonish Crime	Rev. James Cook Richmond	Poems.
Adolph Myer	M. A. Goldschmidt	Novelist.
Agate	Whitelaw Reid	Journalist.
Agricola	William Elliott	Carolina Sports.
Alfred Croquis	Daniel Maclise	Fraserian Portraits.
Alfred Crowquill	A. H. Forrester	Eccentric Tales.
Allan Grant	William Wilson	*Dundee Review.*
Alice G. Lee	Alice Bradley (Neal) Haven	*Godey's Lady's Book.*
Ally Sloper	Charles H. Ross	Adventures in *Judy.*
Almaviva	Clement Scott	*Figaro's* dramatic critic.
Alpin	William Wilson	*Dundee Review.*
Alter	Rev. J. B. Owen	Chess Studies.
Alton Clyde	Sarah Anne Jeffries	Maggie Lynn.
Amateur Casual	James Greenwood	Night in the Workhouse.
Amelia	Mrs. Welby	Poems.
Amicus	Thomas Fairbairn	Social Progress.
Amy Lothrop	Anna B. Warner	Dollars and Cents.
An Amateur	Charles K. Sharpe	Portraits.
An American	Gen. Lewis Cass	Sketches in France.
An Angler	Sir Humphry Davy	Salmonia.
An English Playgoer	John Oxenford	*The Times.*
An Epicure	F. Saunders	Salad for the Solitary.
An Irish Woman	Miss Anna Perrier	The Irishman.
An Octogenarian	James Roche	Essays.
An Old Bushman	W. Wheelwright	Naturalist.
An Old Man	Sir Francis Bond Head	Bubbles from the Brunner.
An Old Sailor	M. H. Baker	Sea Tales.
Anthony Pasquin	John Williams	*Morning Herald.*
Arachnophilus	Adam White	Essays.
Archæus	Rev. John Sterling	The Onyx Ring.
Ariel	Stephen R. Fiske	*New York Leader.*
Artemus Ward	Charles F. Browne	"His Book."
Arthur Griffenhoff	George Colman, Jr.	Dramatist.
Arthur Sketchley	Rev. George Ross	Mrs. Brown.
Asa Trenchard	Henry Watterson	Magazine sketches.
Ascott R. Hope	Robert Hope Montcrieff	Book About Boys.
Aug. Dunshunner	Wm. E. Aytoun	Tales, *Blackwood.*
Augur	H. M. Feist	The Racing Prophet.
Aunt Fanny	Mrs. T. D. Gage	Juvenile Tales.
Aunt Judy	Mrs. Alfred Gatty	*Aunt Judy's Magazine.*
Azamat Batuk	N. L. Thieblin	Spain and Spaniards.
Bab	W. S. Gilbert	Bab Ballads.
Bailey	Fred. Douglass	Journalist.
Barclays, One of the	Mrs. H. G. Otis	Barclays of Boston.
Barnacle	A. C. Barnes	*Litterateur.*
Barrabas Whitefeather	Douglas Jerrold	Articles in *Punch.*
Barry Cornwall	B. W. Proctor	The Sea and other Songs.
Barry Gray	Robert Barry Coffin	My Married Life.
Belle Brittan	Hiram Fuller	*New York Mirror.*
Belle Smith	Louise Kirby Platt	*Home Journal.*
Benauly	Benjamin V. Austin and Lyman Abbott, Ben. Au. Ly., jointly	Conecut Corners.
Benedict Cruiser	George Aug. Sala	How I Tamed Mrs. C.
Berwick	James Redpath	The John Brown Invasion.
Besieged Resident	H. Labouchere	In Paris.
Bibliophile Jacob	Paul Lacroix	Novels.
Bideford Postman	Edward Capern	Poems.
Bill Arp	Charles H. Smith.	
Blythe White, Jun	Solon Robinson	*New York Tribune.*
Bob Short	A. B. Longstreet	Political articles.
Bon Gaultier	Wm. E. Aytoun	Ballads.
Boston Bard	Robert S. Coffin	Poems.
Boston Rebel	John Lowell	Political articles.
Boz	Charles Dickens	Sketches by Boz.
Bret Harte	Francis B. Hart	The Heathen Chinee.
Brother Peregrine	Octavian Blewitt	*Fraser's Magazine.*
Burleigh	Matthew Hale Smith	*Boston Journal.*
Buller of Brasenose	John Hughes	*Blackwood's Magazine.*
Cadwalader Rowlands	J. C. Hotten	Life of H. M. Stanley.

ASSUMED NAME.	REAL NAME.	REPRESENTATIVE WORK.
Cæsariensis	Rev. James W. Alexander	*Literary World.*
Caller Herrin	Annie Smith	Tales, *Family Herald.*
Cannibal Jack	Charles Beach	The Way to Win.
Cantell A. Bigly	George W. Peck	Journalist.
Captain Rawdon Crawley	George F. Pardon	The Billiard Book.
Capt. Rock in London	M. J. Whitty	Tales of Irish Life.
Captain Shandon	C. Smith Cheltnam	*Belgravia.*
Caradoc	Henry W. Moore	*St. Louis Spectator.*
Carl Benson	Charles A. Bristed	Upper Ten Thousands.
Carleton	Charles Carleton Coffin	Journalist.
Caveat Emptor	Sir George Stephen	Search of a Home.
Cavendish	W. Johnson Neale	Sea Novels.
Cavendish	Henry Jones	On Whist.
Cecil	Cornelius Tongue	The Stud Farm.
Cham	A. de Noe	Caricatures.
Charles Martel	Thomas Delf	Miscellanies.
Chas. Summerfield	Albert W. Arrington	*Southern Literary Messenger.*
Charlotte Elizabeth	Charlotte Elizabeth Tonna	Tales.
Chartist Parson	Rev. Chas. Kingsley	Poems.
Chevalier	M. C. Hart	*Sunday Mercury.*
Cheviot Tichburn	W. H. Ainsworth	Novelist.
Chinese Philosopher	Oliver Goldsmith	Citizen of the World.
Chris. Crowfield	Mrs. H. B. Stowe	Magazine articles.
Christine Severne	Mrs. Anna Boulton	Could Aught Atone?
Christian Reed	Francis C. Fisher	Novelist.
Christopher North	John Wilson	Noctes Ambrosianæ.
Claribel	Mrs. Barnard	Come Back to Erin.
C. O. Nevers	Chas. C. Converse	Sweet Singer.
Colley Cibber	James Rees	Dramatic Criticism.
Countess Dash	Viscomtesse de St. Mars	Sketches.
Cousin Alice	Alice Bradley (Neal) Haven	*Godey's Lady's Book.*
Cousin Kate	Catherine D. Bell	Hope Campbell.
Currer Bell	Charlotte Bronte	Jane Eyre.
Cuthbert Bede	Rev. E. Bradley	Verdant Green.
D. C. L.	Beresford Hope	Letters on Church Matters.
D—— G——	George Daniel	Dramatic critic.
Danbury Newsman	J. M. Bailey	Life in Danbury.
Darby North	Daniel Owen Madden	The Mildmays.
Davenant Cecil	Derwent Coleridge	*Knight's Quarterly.*
Delta	David M. Moir	Poems.
Dennis Jasper Murphy	Rev. C. Maturin	Novels and plays.
Derwent Conway	Henry D. Inglis	Travels.
Dick Tinto	Frank B. Goodrich	Court of Napoleon.
Diedrich Knickerbocker	Washington Irving	History of New York.
Doctor Merry	J. Wyndham	Merry Companions.
Dod Grile	M. Bierce	Friend's Delight.
Don Leucadio Doblado	Rev. Joseph Blanco White	Letters from Spain.
Dow, Junior	Elbridge G. Page	Patent Sermons.
Dr. Oldham at Graystones	Rev. Caleb S. Henry	*American Advocate of Peace.*
Dr. Viceelmus Blenkinsop	Theo. E. Hook	Whitington and His Cat.
Dr. Peter Morris	J. G. Lockhart	Peter's Letters.
Dr. Syntax	Wm. Combe	Tour of Dr. S.
Dr. Updike Underhill	Royal Tyler	The Life and Adventures of U. U.

ASSUMED NAME.	REAL NAME.	REPRESENTATIVE WORK.
Druid	H. M. Flint	*New York World.*
Dunn Brown	Rev. Samuel Fisk	*Springfield Republican.*
E. B. Waverly	J. Wilson Croker	Letters on Currency.
E. C. Revons	Charles C. Converse	Spring and Holiday.
E. H. T.	Earl of Derby	Travels.
Eden Warwick	George S. Jabet	Notes on Noses.
Edgeworth Benson	John Scott	Visit to Paris.
Edith May	Anna Drinker	Poetry.
Edmund Falconer	Edmund O'Rourke	Dramatist.
Edmund Kirke	James R. Gilmore	Travels.
Edward Baldwin	William Godwin	Juvenile works.
Edward Hazlefoot	W. Sidney Walker	*Knight's Quarterly.*
Edward Herbert	J. Hamilton Reynolds	Poetry.
Edward Stevenson O'Brien	Isaac Butt	College Romance.
Edward Sidney	Beverly Tucker	The Partisan Leader.
Elia	Charles Lamb	Essays of Elia.
Eli Perkins	M. D. Landon	Journalist.
Elizabeth Wetherell	Susan Warner	Wide, Wide World.
Ellis Bell	Emily J. Bronte	Wuthering Heights.
English Opium-Eater	Thos. De Quincey	Confessions.
Ephemera	Henry Fitzgibbon	Book of the Salmon.
Ephraim Holding	George Mogridge	Sunday School Tales.
Espriella Alvarez	Robert Southey	Letters from England.
Estella	Elizabeth Bogart	*New York Mirror.*
Ethan Spike	Matthew F. Whittier.	
Etonensis	Wm. E. Gladstone	*Contemporary Review.*
Ettrick Shepherd	James Hogg	Tales and Poems.
Everpoint	Joseph M. Field	The Drama in Pokerville.
Ezek Richards	John Savage	*The Press.*
Falconbridge	Jonathan F. Kelly	Humor.
Fanny Fern	Mrs. (Sarah Willis) James Parton	Fern Leaves.
Fanny Fielding	Mary J. S. Upsher.	
Fanny Forrester	Emily (Chubbuck) Judson	Trippings in Authorland.
Farmer's Boy	Robert Bloomfield	Poetry.
Fat Contributor	A. Miner Griswold	Humor.
Father Prout	Francis Mahoney	Reliques of Father Prout.
Felix Balfour	Watts Phillips	*London Journal.*
Ferragus	Louis Ulbach	Journalist.
Felta	Kate W. Hamilton.	
Flaneur	Edmund H. Yates	Novels.
Florence Leigh	Ann F. Wilbur	*Ladies' Magazine.*
Florence Percy	Mrs. Eliza Akers	Poetry.
F. G. Trafford	Mrs. J. H. Riddell	George Geith.
Francis Oldys	George Chalmers	Life of Thos. Paine.
Frank Farleigh	Frank E. Smedley	Louis Arundel.
Frank Forrester	Henry W. Herbert	Field Sports of the U. S.
Gail Hamilton	Mary Abigail Dodge	Gala Days.
Gath	Geo. Alf. Townsend	Journalist.
Gemsee	G. E. M. Crawford	Cricket Notes.
Genesee Traveller	Matthew L. Davis	*New York Courier and Inquirer.*
Geoffrey Crayon	Washington Irving	Sketch Book.
George Eliot	Marian C. Evans	Novels.
George Forest	Rev. J. G. Wood	Naturalist.
George Sand	Madame Dudevant	Novels.
Girard Montgomery	John Moultrie	*Knight's Quarterly.*
Glance Gaylord	W. I. Bradley	Fiction.
Gleaner	Nathaniel I. Bowditch	*Boston Transcript.*
Grace Greenwood	Mrs. Sarah Jane (Clark) Lippincott	History of My Pets.
Grace Wharton	A. T. Thompson	Queens of Society.
Graduate of Oxford	John Ruskin	Modern Painters.
Graybeard	John F. Graff	Lay Sermons.
Gregory Griffin	George Canning	*The Microcosm.*

ASSUMED NAME.	REAL NAME.	REPRESENTATIVE WORK.
Hamilton Murray	Henry Molden	*Knight's Quarterly.*
Hans Breitman	Charles G. Leland	Ballads.
Hans Yorkel	A. Oakey Hall	Ballads.
Harkaway	Charles Marshall	Sporting Notes.
Harriett Myrtle	Mrs. L. Miller	Juvenile tales.
Harry Franco	Charles T. Briggs	Adventures of Harry F.
Harry Gringo	Lieut. Harry Aug. Wise	Captain Brand.
Harry Hieover	Charles Brindley	Practical Horsemanship.
Harry Lorrequer	Charles Lever	Adventures of Harry Lorrequer.
H. B.	John Doyle	Caricaturist.
Heatherbell	Eleanor Smith	Tales in *Good Words.*
Helen Berkley	Anna Cora (Mowatt) Ritchie	Evelyn.
Helen Mar	Mrs. D. M. F. Walker.	
Henry Holbeach	W. B. Rands	Shoemakers' Village.
Henry J. Thurston	F. T. Palgrave	Passionate Pilgrim.
Hesba Streton	Sarah Smith	Hester Morley's Primrose.
Hierophilis	Archbishop McHale	Political Letters.
Historicus	Sir L. V. Harcourt	*London Times.*
Home Lee	Harriet Parr	Novelist.
Hookanit Bee, Esq.	S. R. Wigram	Flotsam and Jetsam.
Honestus	Benj. Austin	*Independent Chronicle.*
Hope Ansted	Miss Burdett	*Family Herald.*
Horace Fitz Jersey	Theo. W. A. Buckley	Collegiate Experience.
Horace Welby	John Timbs	Signs before Death.
Horam	Rev. James Ridley	Tales of the Genii.
Horus	John C. Fisher	Journalist.
Hosea Biglow	James R. Lowell	Biglow Papers.
Hotspur	H. M. Feist	*Telegraph and Sporting Life.*
Howadji	Geo. Wm. Curtis	Nile Notes.
Howard Glyndon	Laura C. Reddon	Idyls of Battle.
Huntsman	Grantley Berkeley	*Field.*
H. Trusta	Mrs. Elizabeth Stuart Phelps	Tell-Tale.
Ianthe	Emma C. Embury	Guide and other Poems.
Ignatius Loyola Robinson	Samuel L. Knapp	Sketches of Public Characters.
Ik. Marvel	Donald G. Mitchell	Reveries of a Bachelor.
Impulsia Gushington	Lady Harriet G. (Hamilton) Dufferin	Lispings from Low Latitudes.
Ion	E. Kingman	*Baltimore Sun.*
Isaac Tomkins	Lord Brougham	On the Aristocracy.
Isabel	W. Gilmore Simms	Novelist.
Jack Downing	See Major Jack Downing.	
Jack Humphries	Jonathan F. Kelly	Humor.
Jack Ketch	T. K. Hervey	Poetry.
Jacob Larwood	L. R. Sadler	London Parks.
Jacob Omnium	M. J. Higgins	*The Times.*
January Searle	G. Searle Phillips	Gypsies of Dane's Dyke.
Janus	Dr. Dollinger	Religious controversy.
Janus Weatherbound	T. G. Wainwright	*London Magazine.*
Jasper Buddle	Albert Smith	*Medical Times.*
Jeanie Dods	Miss Mackay	*Figaro.*
Jedediah Cleishbotham	Sir Walter Scott	Tales of My Landlord.
Jeemes Pipes of Pipesville	Stephen C. Massett	Humor.
Jenny June	Mrs. Jennie C. Croly	Children's tales.
Jeremiah Bingletub	John Styles	Velvet Cushion.
J. K. L.	Bishop Doyle	Religious controversy.
Joaquin Miller	Cincinnatus H. Miller.	Poems.
Job Sass	George A. Foxcroft.	
Joe Miller, Jr	Thompson Westcott	*Sunday Despatch.*
John Darby	J. E. Garretson	Essays.
John Gifford	Edward Foss	Legal Peers.
John Hampden	Lord (G. N. Greenville) Nugent	History.
John Jorrocks	Edward Surtees	Sponge's Sporting Tour.
John Oldbug	Rev. Leonard Withington	The Puritan.
John Paul	Charles H. Webb	Liffith Lank.
John Phœnix	Capt. Geo. H. Derby	Phœnixiana.
John Quod	John T. Irving	*Knickerbocker Magazine.*
John Sur-re-butter	John Anstey	The Pleader's Guide.
John Waters	Henry Cary	*Knickerbocker Magazine.*
Jon Bee	John Badcock	Slang Dictionary.
John Chalkhill	Izaak Walton	The Complete Angler.
Jonathan Freke Slingsby	John F. Waller	Slingsby Papers.
Jonathan Oldstyle	Washington Irving	*Morning Chronicle.*
Joseph Hutter	Henry N. Coleridge	*Knight's Quarterly.*
Josh Billings	Henry W. Shaw	Allminax.
Joshua Coffin	H. W. Longfellow	History of Newbury.
Journeyman Printer	C. Manby Smith	Autobiography of J. P.
J. Sand	Miles Sandau	Novelist.
Julian Cramer	Joseph Lemuel Chester	Journalist.
Justitia	Bennett Lowe	Photog. Note-Book.
Karl Reden	Charles C. Converse	Church Singer.
Kirwan	Rev. Nicholas Murray	Religious Controversy.
Knickerbocker	John S. Du Solle	*Sunday Despatch.*
K. N. Pepper	J. W. Morris	Poems.
Kuklos	John Harris	Tales in magazines.
Laco	Stephen Higginson	Political controversy.
Lactilla	Mrs. Anne Yearsley	Poems.
Launcelot Wagstaffe, Jr.	Charles Mackay	Gouty Philosopher.
Laura Caxton	Lizzie B. Comins.	
Lawrence Slingsby	Geo. H. Lewes	Burlesques.
Leighton	Rev. Jesse Appleton	Piscataqua *Evangelical Magazine.*
Lemuel Gulliver	Jonathan Swift	Gulliver's Travels.
Leonard Rae	John Douglas	Hal o' the Wynd.
Lewis Carroll	C. L. Douglas	Alice in Wonderland.
L'Inconnue	L. Virginia French	Poems.
Littlejohn	Fred. G. Tomlins	*London Weekly Times.*
London Antiquarian	J. C. Hotten	Slang Dictionary.
Louise Muhlbach	Clara (Muller) Mundt	Historical Novels.
Louis de Montalte	Blaise Pascal	Letters to a Provincial.
Luke Limner	John Leighton	Artist.
Lynn Bard	Alonzo Lewis	Poems.
Mac	W. McConnell	Comic Draughtsman.
McArone	George Arnold	McArone Papers.
Mace Sloper	Charles G. Leland	Ballads.
Major Jack Downing	Seba Smith	Humor.
Malakoff	Dr. Johnson	*New York Times.*
Manhattan	Joseph A. Scoville	*London Herald.*
Maria del Occidente	Maria (Gowen) Brooks	Poems.
Marietta	Harriet M. Bradley	Minnie's Birthday.
Marion Harland	Mary Virginia (Hawes) Terhune	Novels.
Marion Ward	Mrs. Harriet M. Stephens	Novels.
Markham Howard	Mary Cecil Hay	Old Middleton's Money.
Mark Littleton	John P. Kennedy	Swallow Barn.
Mark Rochester	W. C. M. Kent	The Derby Ministry.
Mark Twain	Samuel L. Clemens	Innocents Abroad.
Married Critic	Jules G. Janin	Criticisms.
Martin Doyle	Rev. William Hickey	Irish Agriculture.
Mary Clavers	Mrs. C. M. Kirkland	A New Home.
Mary Orme	Mrs. Mary Sargent Gove (Neal) Nichols	Lectures to Ladies.

ASSUMED NAME.	REAL NAME.	REPRESENTATIVE WORK.
Mary Powell	Miss M. A. Manning	Fiction.
Massachusettensis	Daniel Leonard	Political controversy.
Master Timothy	G. W. M. Reynolds	Master Timothy's Bookcase.
Matthew Browne	William B. Rands	Poems.
Matthew Stradling	M. M. F. Mahoney	Gilbert Massinger.
Maurice Sand	Maurice Dudevant	Travels.
Max Adeler	Chas. Heber Clark	Comic.
Mercutio	Will Winter	*New York Tribune.*
Michael Angelo Titmarsh	W. M. Thackeray	Paris Sketches.
Miles O'Reilly	See Private Miles O'Reilly.	
Minnie Myrtle	Anna L. Johnson (Mrs. Joaquin Miller)	Poems.
Modern Pythagorean	Robert McNish	*Blackwood's Magazine.*
Mofussilite	Thomas Lang	Too Clever by Half.
Morgan O'Doherty	William Maginn	*Blackwood's Magazine.*
Morgan Rattler	Percival Banks	*Fraser's Magazine.*
Mr. Pips	Percival Leigh	*Punch.*
Mrs. Markham	Mrs. Elizabeth Penrose	School histories.
Mrs. Manners	Cornelia H. (Bradley) Richards	At Home and Abroad.
Mrs. Partington	Benj. P. Shillaber	*Boston Post.*
Ned Buntline	E. Z. C. Judson	King of the Sea.
Nelsie Brook	Mrs. Ellen Ross	Little Mother Mattie.
Nicias Foxcar	Francis Jacox	Journalist.
Nilla	Miss Abby Allin	Home Ballads.
Nimrod	Charles J. Apperly	Chase, Turf and Road.
Novanglus	John Adams	Political controversy.
O. F. Q. Philander Smith	A. Douty	Natural history in *Figaro.*
Occasional	John W. Forney	*The Press*, Philadelphia.
Old Humphrey	George Mogridge	Every-day Lessons.
Old Merry	Edwin Hodder	*Old Merry's Annual.*
Old Sailor	Henry M. Barker	Tough Yarns.
Old Shekarry	Major Leveson	Forest and Field.
Old South	Benjamin Austin	*Independent Chronicle.*
Oliver Oldschool	Joseph Dennie	*The Portfolio.*
Oliver Optic	William F. Adams	Juvenile tales.
Olivia	Emily Edson Grigg	Journalist.
Ollapod	Willis G. Clark	*Knickerbocker Magazine.*
Olphar Hamst, Esq.	Ralph Thomas	Handbook of Fictitious Names.
One from the Plough	G. Mitchell	*The Times.*
Onuphrio Muralto	See William Marshall, Gent.	
Onyx Titian	Sarah Woodward	Apple Blossom.
Orpheus C. Kerr	Robert H. Newell	Humor.
Ouida	Louise de la Rame	Under Two Flags.
Owen Meredith	Lord (Robert E. Bulwer) Lytton	Lucille.
P. Fisher	W. E. Chatto	Angler's Souvenir.
Parson Frank	Francis Jacox	Journalist.
Patty Lee	Alice Cary	Poems.
Paul Beranger	J. A. S. Collin (Danton) de Plancy	Infernal Dictionary.
Paul Creyton	John F. Trowbridge	Fiction.
Paul Pindar	J. Yonge Akerman	Legends of Old London.
Paul Priggins	Rev. J. Hewlett	Novelist.
Paulus Silentiarius	George P. Philes	The Philobiblion.
Peasant Bard	Josiah D. Canning	Poems.
Pennsylvania Farmer	John Dickinson	Political controversy.
Pequot	Charles W. March	*Boston Courier.*
Peregrine Persic	James Morier	Hajji Baba.
Perley	Benj. Perley Poore	*Boston Journal.*
Peter Palette	Thomas Onwhyn	Artist.
Peter Parley	Samuel G. Goodrich	Cabinet Library.
Peter Pennot	Rev. W. F. Round.	
Peter Peppercorn	Thomas L. Peacock	Poems.
Peter Pindar	Dr. John Wolcot	Satirist.
Peter Plymley	Rev. Sydney Smith	Letters.
Peter Porcupine	William Cobbett	P. P.'s Gazette.
Peter Priggins	Rev. H. Hewlett	College Scout.
Peter Quince	Isaac Story	The Parnassian Shop.
Peter Schlemihl	George Wood	P. S. in America.
Peter Scriber	Charles Aug. Davis	*Commercial Advertiser.*
Peter Wilkins	Robert Pattock	Fiction.
Petroleum V. Nasby	David R. Locke	*Toledo Blade.*
Philanthropos	William Lad	Friend of Peace.
Philip Quilibet	George E. Pond.	
Philip Wharton	John C. Thomson	Wits and Beaux.
Philopatris Varvicensis	Samuel Parr	Characters of Fox.
Phiz	H. K. Browne	Illustrator of Dickens.
Poor Richard	Benjamin Franklin	P. R.'s Almanac.
Porte Crayon	David H. Strother	*Harper's Magazine.*
Priam	C. J. Collins	Dick Diminy.
Private Miles O'Reilly	Charles G. Halpine	*New York Herald.*
Prizeman Newdigate	W. H. Mallock	Every Man His Own Poet
Publicola	John Quincy Adams	Political controversy.
Publicola	W. J. Fox	*Westminster Review.*
Publicola	David E. Williams	*London Weekly Despatch.*
Puck	John Proctor	Caricature cartoons.
Q	Chas. G. Rosenberg	You've Heard of 'Em.
Q	Edmund H. Yates	*Evening Star.*
Q. Q.	Miss Jane Taylor	*Youth's Magazine.*
Q. K. Philander Doesticks	M. M. Thompson	Plu-ri-bus-tah.
Quallon	S. H. Bradbury	Poems.
Quiz	Rev. Ed. Caswell	Sketches.
Radical	Leslie Grove Jones	*London Times.*
Rawdon Crawley	See Capt. Rawdon Crawley.	
Red Spinner	W. Senior	Waterside Sketches.
Reuben Percy	See Sholto and R. Percy.	
Richard Brisk	J. Duncan	Railway Book.
Richard Hayward	Fred. S. Cozzens	*Knickerbocker Magazine.*
Robinson Crusoe	Daniel Defoe	Adventures of R. C.
Rob Roy	John Macgregor	Canoe Voyages.
Roving Englishman	Grenville Murray	Sketches.
Ruhama	Miss Skidmore	*St. Louis Globe-Democrat.*
Runnymede	Benjamin Disraeli	Letters of Runnymede.
Rustic Bard	Robert Dinsmoor	Poems.
Rutledge	Mrs. Miriam (Coles) Harris.	
S. G. O.	S. G. Osborne	*The Times.*
Samuel A. Bard	Ephraim G. Squier	Waikna.
Sam Slick	Thos. C. Haliburton	The Clockmaker.
Sarah Tyler	Miss Keddie.	Papers for Thoughtful Girls.
Saville Rome	Clement Scott	*London Telegraph.*
Scrutator	J. Horlock	Country Gentleman.
See De Kay	Charles D. Kirk.	
Seeley Regester	Mrs. O. J. Victor.	
Sexton of the Old-school	Lucius M. Sargent	Dealings with the Dead.
Shamrock	R. D. Williams	Poems.
Shelsley Beauchamp	T. W. Bradley	Grantley Grange.
Shirley Dare	Mrs. (Susan Dunning) Waters.	
Sholto and Reuben Percy	Thomas Byerley and Joseph C. Robertson	Percy Anecdotes.
Sholto	R. S. Mackenzie	*Philadelphia Press.*
Sigma	Lucius M. Sargent	*Boston Transcript.*
Silverpen	Eliza Meteyard	Lilian's Golden Hours.
Sir Cosmo Gordon	Sir S. E. Brydges	Letters on Byron.
Sir Galahad	Henry W. Moore	*Kansas City Times.*

ASSUMED NAME.	REAL NAME.	REPRESENTATIVE WORK.
Solitaire.....	.....John S. Robb.....	Humor.
Sophie May.....	Miss R. S. Clark.....	Swamp Dr.'s Adventures.
Sparrowgrass.....	F. S. Cozzens.....	Sparrowgrass Papers.
Speranza.....	Lady Wilde.....	Poems.
Spy in Washington..	Matthew L. Davis....	*N. Y. Courier.*
Squibob.....	George H. Derby.....	Squibob Papers.
Stampede.....	Jonathan F. Kelly.....	Humor.
Stella.....	Mrs. E. A. B. Lewis...	Records of the Heart.
Stonehenge.....	J. Henry Walsh.....	The Dog.
Straws.....	Joseph M. Field.....	*New Orleans Picayune.*
Straws, Jr.....	Miss Kate Field.....	*Springfield Republican.*
Sut Lovengood.....	George W. Harris.....	Humor.
Sydney Yendys.....	Sydney Dobell.....	Poetry.
Tabor.....	Mrs. Robinson.....	Novelist.
Tag, Rag and Bobtail.	Isaac D'Israeli.....	Flim-Flams.
Talvi.....	Mrs. Ed. Robinson....	Tales.
Tamoc Caspipini.....	Jacob Duche.....	Letters of T. C.
Teufelsdræckh.....	Thomas Carlyle.....	Sartor Resartus.
Teutha.....	William Jerdan.....	Literary Gazette.
The Black Dwarf....	Thomas J. Wooler....	Politics.
The Celt.....	Thomas Davis.....	Poems.
The Druid.....	Henry H. Dixon.....	Silk and Scarlet.
The Governor.....	Henry Morford.....	*New York Atlas.*
The O'Hara Family..	John and M. Banim...	Novels.
The Traveller.....	Isaac Stary.....	*Columbian Sentinel.*
Theodore de la Guarde	Nathaniel Ward.....	Simple Cobbler.
Theodore Taylor.....	J. C. Hotten.....	Life of Thackeray.
Thinks I to Myself...	Rev. Dr. Ed. Nares....	Novels.
Thomas Little.....	Thomas Moore.....	Little's Poems.
Thomas Ingoldsby...	Rev. R. H. Barham....	Ingoldsby Legends.
Thomas Rowley.....	Thomas Chatterton....	Poems.
Timon Fieldmouse...	William B. Rands.....	Essays.
Timothy Tickler.....	Robert Syme.....	In Noctes Ambrosianæ.
Timothy Titcomb....	J. G. Holland.....	Letters to the Young.
Tom Brown.....	Thomas Hughes.....	Tom Brown at Rugby.
Tom Folio.....	Joseph E. Babson.	
Tom Hawkins.....	Theo. W. A. Buckley..	*Gentleman's Magazine.*
Trinculo.....	John A. Cockerill.....	Journalist.
Tristram Merton.....	Thomas B. Macaulay..	*Knight's Quarterly.*
Two Brothers.....	A. and C. Tennyson...	Poems.
Ubique.....	Parker Gilmore.....	Afloat and Ashore.
Una.....	Mary A. Ford.....	Poems.
Uncle Hardy.....	William Senior.....	Notable Shipwrecks.
Uncle John.....	Elisha Noyce.....	Marvels of Nature.
Uncle Philip.....	Rev. Dr. F. L. Hawks.	American Histories.
Uncle Toby.....	Rev. Tobias H. Miller.	
V.....	Mrs. Archer Clive.....	Poems.
Vandyke Brown.....	William Penn Brennan	Harp of a Thousand Strings.
Veteran Observer....	Ed. D. Mansfield.....	Chronicle and Atlas.
Village Schoolmaster	C. M. Dickinson.....	Tales.
Vigilant.....	John Corlett.....	*The Times.*
Vivian.....	George H. Lewes.....	*The Leader.*
Vivian Joyeux.....	W. M. Praed	*Knight's Quarterly.*
Walter Barrett, clerk.	Joseph A. Scoville.....	Old Merchants of N. Y.
Walking Gentleman.	Thos. C. Grattan.....	Highways and Byways.
Walter Maynard.....	W. Beale.....	Enterprising Impresario.
Warrington.....	William S. Robinson..	*Springfield Republican.*
Waters.....	William H. Russell...	Diary of a Detective.
Werdna Retnyw.....	Andrew Wynter.....	Odds and Ends.
What's His Name....	E. C. Massey.....	Green-eyed Monster.
Wm. Marshall, Gent..	Horace Walpole.....	Castle of Otranto.
William and Robert Whistlecraft	John Hookham Frere.	King Arthur.
Wilibald, Alexis.....	William Hæring.....	Walladmor.
Wizard	John Corlett.....	*The Times.*
Zadkiel the Seer.....	R. J. Morrison.....	Prophetic Almanac.



A DICTIONARY OF MYTHOLOGY

THE HEATHEN DEITIES AND OTHER FABULOUS PERSONS OF GREEK AND ROMAN HISTORY.

ABEO'NA. A goddess of voyages, etc.

Acha'tes. The trusty friend of Æneas.

Ach'eron. The son of Sol and Terra, changed by Jupiter into a river of hell. Used also for hell itself.

Achil'les. A Greek who signalized himself in the war against Troy. Having been dipped by his mother in the river Styx, he was invulnerable in every part except his right heel, but was at length killed by Paris with an arrow.

A'cis. A Sicilian shepherd, killed by Polyphemus because he rivaled the latter in the affections of Galatea.

Actæ'on. A famous hunter, who, having surprised Diana as she was bathing, was turned by her into a stag, and killed by his own dogs.

Ado'nis. A beautiful youth beloved by Venus and Proserpine. He was killed by a wild boar. When wounded, Venus sprinkled nectar into his blood, from which flowers sprang up.

Æge'us. A king of Athens, giving name to the Ægean sea by drowning himself in it.

Æ'gis. A shield given by Jupiter to Minerva. Also the name of a Gorgon whom Pallas slew.

Æne'as. A Trojan prince, son of Anchises and Venus; the hero of Virgil's poem the *Æneid*.

Æ'olus. The god of the winds.

Æo'us. One of the four horses of the sun.

Æscula'pius. The god of medicine, and the son of Apollo. Killed by Jupiter with a thunderbolt for having restored Hippolytus to life.

Æ'thon. One of the four horses of the sun.

Agamem'non. King of Mycenæ and Argos, brother to Menelaus, and chosen captain-general of the Greeks at the siege of Troy.

Aganip'pe. A fountain at the foot of Mount Helicon, daughter of the river Permessus.

Agla'ia. One of the three Graces.

A'jax. Next to Achilles, the bravest of all the Greeks in the Trojan war.

Al'bion. The son of Neptune; went into Britain and established a kingdom.

Alces'te, or **Alcestis.** The daughter of Pelias and wife of Admetus, brought back from hell by Hercules.

Alci'des. A title of Hercules.

Alec'to. One of the three Furies.

Alo'a. A festival of Bacchus and Ceres.

Am'mon. A title of Jupiter.

Amphi'on. A famous musician, the son of Jupiter and Antiope, who built the city of Thebes by the music of his harp. He and his brother Zethus are said to have invented music.

Amphitri'te. Goddess of the sea, and wife of Neptune.

Androm'ache. Wife of Hector.

Androm'eda. The daughter of Cepheus and Cassiopeia, who, contesting with Juno and the Nereides for the prize of beauty, was bound to a rock by them and exposed to a sea monster, but was rescued and married by Perseus.

Ange'rona. The goddess of silence.

Antæ'us. The giant son of Neptune and Terra; squeezed to death by Hercules.

Antever'ta. Goddess of women in labor.

Antig'one. The daughter of Œdipus and Jocasta, famous for her filial piety.

An'ubis. An Egyptian god with a dog's head.

A'pis. Son of Jupiter and Niobe; called also Serapis and Osiris. Taught the Egyptians to sow corn and plant vines, and worshipped by them in the form of an ox.

Apol'lo. The son of Jupiter and Latona, and the god of music, poetry, eloquence, medicine and the fine arts.

Arach'ne. A Lydian princess, turned into a spider for contending with Minerva at spinning.

Arethu'sa. One of Diana's nymphs, who was changed into a fountain.

Ar'gus. The son of Aristor; said to have had a hundred eyes; but being killed by Mercury when appointed by Juno to guard Io, she put his eyes on the tail of a peacock. Also an architect, who built the ship Argo.

Ariad'ne. The daughter of Minos, who, from love to Theseus, gave him a clew of thread, to guide him out of the Cretan labyrinth; being afterward deserted by him, she was married to Bacchus, and made his priestess.

Ari'on. A lyric poet of Methymna, who, in his voyage to Italy, saved his life from the cruelty of the mariners by means of dolphins, which the sweetness of his music brought together.

Aristæ'us. A son of Apollo and Cyrene.

Astræ'a. The goddess of justice; changed into the constellation Virgo.

Atalan'ta. A princess of Scyros, who consented to marry that one of her suitors who should outrun her, Hippomenes being the successful competitor.

At'las. One of the Titans, and king of Mauretania; said to have supported the world on his shoulders; he was turned into a mountain by Perseus.

Auro'ra. The goddess of morning.

Autum'nus. The god of fruits.

Bacchan'tes. Priests of Bacchus.

Bac'chus. The son of Jupiter and Semele, and the god of wine.

Bap'ta. The goddess of shame.

Beller'ophon. The son of Glaucus, king of Ephyra. He underwent numerous hardships for refusing an intimacy with Sthenoboea, wife of Prœtus, the king of Argos. With the aid of the horse Pegasus he destroyed the Chimera.

Bello'na. Goddess of war; sister of Mars.

Bereni'ce. A Grecian lady; the only person of her sex permitted to see the Olympic games.

Boli'na. A nymph rendered immortal for her modesty and resistance to Apollo.

Bo'reas. The son of Astræus and Aurora; the name of the north wind.

Bria'reus. A giant who warred against heaven, and was feigned to have had fifty heads and one hundred arms.

Busi'ris. The son of Neptune; a tyrant of Egypt, and a monstrous giant, who fed his horses with human flesh; was killed by Hercules.

Byb'lis. The daughter of Miletus; she wept herself into a fountain through love of her brother Caunus.

Ca'cus. A son of Vulcan and a most notorious robber; slain by Hercules for stealing his oxen.

Cad'mus. The son of Agenor, king of Phœnicia; founder of Thebes, and the reputed inventor of sixteen letters of the Greek alphabet.

Cadu'ceus. Mercury's golden rod or wand.

Calli'ope. One of the Muses, presiding over eloquence and epic poetry.

Calyp'so. One of the Oceanides, who reigned in the island Ogygia, and entertained and became enamored of Ulysses.

Camæ'na, or **Carna.** Goddess of infants.

Cassan'dra. A daughter of Priam and Hecuba, endowed with the gift of prophecy by Apollo.

Castal'ides. The Muses, so called from the fountain Castalius, at the foot of Parnassus.

Cas'tor. A son of Jupiter and Leda. He and his twin brother Pollux shared immortality alternately, and were formed into the constellation Gemini.

Ce'crops. The first king of Athens, who instituted marriage, altars and sacrifices.

Cen'taurs. Children of Ixion, half men and half horses, inhabiting Thessaly, and vanquished by Theseus.

Cer'berus. The three-headed dog of Pluto, guarding the gates of hell.

Ce'res. The daughter of Saturn and Cybele, and goddess of agriculture.

Cha'ron. The son of Erebus and Nox, and ferryman of hell, who conducted the souls of the dead over the rivers Styx and Acheron.

Charyb'dis. A ravenous woman, turned by Jupiter into a very dangerous gulf or whirlpool on the coast of Sicily.

Chi'mera. A strange monster of Lycia, killed by Bellerophon.

Chi'ron. A Centaur, who was preceptor to Achilles, taught Æsculapius physic, and Hercules astronomy, and who became the constellation Sagittarius.

Chry'seis. The daughter of Chryses, priest of Apollo, famed for beauty and for her skill in embroidery.

Cir'ce. A noted enchantress.

Cli'o. One of the Muses, presiding over history.

Clo'tho. One of the three Fates.

Clytemnes'tra. The faithless wife of Agamemnon, killed by her son Orestes.

Co'mus. The god of merriment.

Cro'cus. A young man enamored of the nymph Smilax, and changed into a flower.

Cro'sus. King of Lydia; the richest man of his time.

Cu'pid. Son of Mars and Venus; the god of love.

Cyb'ele. The daughter of Cœlus and Terra; wife of Saturn, and mother of the gods.

Cy'clops. Vulcan's workmen, giants who had only one eye, in the middle of their foreheads; slain by Apollo in a pique against Jupiter.

Dæd'alus. A most ingenious artificer of Athens, who formed the Cretan labyrinth, and invented the auger, axe, glue, plumb-line, saw, and masts and sails for ships.

Da'mon. The friend of Pythias.

Dana'ides, or Be'lides. The fifty daughters of Danaus, king of Argos, all of whom, except Hypermnestra, killed their husbands on the first night of their marriage, and were therefore doomed to draw water out of a deep well, and eternally pour it into a cask full of holes.

Daph'ne. A nymph beloved by Apollo; the daughter of the river Peneus; changed into a laurel tree.

Daph'nis. A shepherd of Sicily and son of Mercury; educated by the nymphs, and inspired by the Muses with the love of poetry.

Dar'danus. A son of Jupiter and founder of Troy.

Deida'mia. The daughter of Lycomedes, king of Scyros; wife of Achilles, and mother of Pyrrhus.

Deiph'obus. A son of Priam and Hecuba; married Helena after the death of Paris, but betrayed her to the Greeks.

Dejani'ra. Wife of Hercules, who killed herself in despair, because her husband burnt himself to avoid the torment occasioned by the poisoned shirt she had given him to regain his love.

Del'phi. A city of Phocis, famous for a temple and an oracle of Apollo.

Deuca'lion. The son of Prometheus, and king of Thessaly, who, with his wife Pyrrha, was preserved from the general deluge, and repeopled the world by throwing stones behind them, as directed by the oracle.

Dian'a. Daughter of Jupiter and Latona, and goddess of hunting, chastity and marriage.

Di'do. Founder and queen of Carthage; daughter of Belus, and wife of Sichæus. According to Virgil, she entertained Æneas on his voyage to Italy, and burnt herself through despair, because he left her.

Diome'des. Son of Tydeus, and king of Ætolia; gained great reputation at Troy, and, with Ulysses, carried off the Palladium.

Dir'ce. Wife of Lycus, king of Thebes; dragged to death by a mad bull.

Dry'ades. Nymphs of the woods.

Ech'o. The daughter of Aer, or Air, and Tellus, who pined away for love of Narcissus.

Elec'tra. Daughter of Agamemnon and Clytemnestra; instigated her brother Orestes to revenge their father's death upon their mother and Ægisthus.

Elys'ium. The happy residence of the virtuous after death.

Encel'adus. Son of Titan and Terra, and the strongest of the giants; conspired against Jupiter, and attempted to scale heaven.

Endym'ion. A shepherd and astronomer of Caria, condemned to a sleep of thirty years.

Epe'us. The artist who made the Trojan horse, inventor of the sword and buckler.

Er'ato. The Muse of lyric and amorous poetry.

Er'eane. A river whose waters inebriated.

Er'ebus. The son of Chaos and Nox; an infernal deity. A river of hell, and often used by the poets for hell itself.

Erin'nys. The Greek name for the Furies, or Eumenides.

E'ros. A name of Cupid.

Eumen'ides. A name of the Furies.

Euphor'bus. The son of Panthous; slain by Menelaus in the Trojan war.

Euphros'yne. One of the three Graces.

Euro'pa. The daughter of Agenor; carried by Jupiter, in the form of a white bull, into Crete.

Eury'ale. A queen of the Amazons. Also one of the three Gorgons

Eury'alus. A Peloponnesian chief in the Trojan war. Also, a Trojan and a friend of Nisus, for whose loss Æneas was inconsolable.

Eurydi'ce. Wife of Orpheus; killed by a serpent on her marriage day.

Euryl'ochus. One of the companions of Ulysses; the only one who was not changed by Circe into a hog

Euter'pe. One of the Muses, presiding over music.

Evad'ne. Daughter of Mars and Thebe; threw herself on the funeral pyre of her husband, Capaneus.

Fab'ula. Goddess of lies.

Fa'ma. Goddess of report, etc.

Fates. Powerful goddesses, who presided over the birth and the life of mankind, were the three daughters of Nox and Erebus, named Clotho, Lachesis and Atropos. Clotho was supposed to hold the distaff, Lachesis to draw the thread of human life, and Atropos to cut it off.

Fau'na, and Fatu'a. Names of Cybele.

Fau'ni. Rural gods, described as having the legs, feet and ears of goats.

Fau'nus. Son of Mercury and Nox, and father of the Fauni.

Flo'ra. The goddess of flowers.

Fortu'na. The goddess of fortune; said to be blind.

Fur'ies. The three daughters of Nox and Acheron, named Alecto, Tisiphone and Megæra, with hair composed of snakes, and armed with whips, chains, etc.

Galate'a. A sea-nymph, daughter of Nereus and Doris, passionately loved by Polyphemus.

Gan'ymede. The son of Tros, King of Troy, whom Jupiter, in the form of an eagle, snatched up and made his cup-bearer.

Ge'ryon. A monster, having three bodies and three heads, and who fed his oxen with human flesh, and was therefore killed by Hercules.

Gor'dius. A husbandman, but afterward king of Phrygia, remarkable for tying a knot of cords, on which the empire of Asia depended, in so intricate a manner, that Alexander, unable to unravel it, cut it asunder.

Gor'gons. The three daughters of Phorcus and Ceta, named Stheno, Euryale and Medusa. Their bodies were covered with impenetrable scales, their hair entwined with serpents; they had only one eye betwixt them, and they could change into stones those whom they looked on.

Gra'ces. Three goddesses, Aglaia, Thalia and Euphrosyne, represented as beautiful, modest virgins, and constant attendants on Venus.

Ha'des. A title of Pluto.

Har'pies. Winged monsters, daughters of Neptune and Terra, named Aello, Celæno and Ocypete, with the faces of virgins, the bodies of vultures, and hands armed with claws.

He'be. The daughter of Juno; goddess of youth, and Jupiter's cup-bearer; banished from heaven on account of an unlucky fall.

Hec'tor. The son of Priam and Hecuba; the most valiant of the Trojans, and slain by Achilles.

Hec'uba. The wife of Priam, who tore her eyes out for the loss of her children.

Hel'ena, or Hel'en. The wife of Menelaus, and the most beautiful woman of her age, who, running away with Paris, occasioned the Trojan war.

Hel'enus. A son of Priam and Hecuba, spared by the Greeks for his skill in divination.

Hel'le. The daughter of Athamas, who, flying from her stepmother Ino, was drowned in the Pontic Sea, and gave it the name of Hellespont.

Her'cules. The son of Jupiter and Alcmena; the most famous hero of antiquity, remarkable for his great strength and numerous exploits.

Her'mes. A name of Mercury.

Hermi'one. The daughter of Mars and Venus, and wife of Cadmus; was changed into a serpent. Also, a daughter of Menelaus and Helena, married to Pyrrhus.

He'ro. A beautiful woman of Sestos, in Thrace, and priestess of Venus, whom Leander of Abydos loved so tenderly that he swam over the Hellespont every night to see her; but he, at length, being unfortunately drowned, she threw herself, in despair, into the sea.

Hesper'ides. Three nymphs, Ægle, Arethusa and Hesperethusa, daughters of Hesperus. They had a garden bearing golden apples, watched by a dragon, which Hercules slew, and bore away the fruit.

Hes'perus. The son of Japetus, and brother to Atlas; changed into the evening star.

Hippol'ytus. The son of Theseus and Antiope, or Hippolyte, who was restored to life by Æsculapius, at the request of Diana.

Hippom'enes. A Grecian prince, who, beating Atalanta in the race by throwing golden apples before her, married her. They were changed by Cybele into lions.

Hyacin'thus. A beautiful boy, beloved by Apollo and Zephyrus. The latter killed him; but Apollo changed the blood that was spilt into a flower called hyacinth.

Hy'ades. Seven daughters of Atlas and Æthra, changed by Jupiter into seven stars.

Hy'dra. A celebrated monster, or serpent, with seven, or, according to some, fifty heads, which infested the Lake Lerna. It was killed by Hercules.

Hy'men. Son of Bacchus and Venus, and god of marriage.

Hyp'erion. Son of Cœlus and Terra.

Ica'rius. Son of Œbalus; having received from Bacchus a bottle of wine, he went into Attica to show men the use of it, but was thrown into a well by some shepherds whom he had made drunk and who thought he had given them poison.

Ic'arus. The son of Dædalus, who, flying with his father out of Crete into Sicily, and soaring too high, melted the wax of his wings, and fell into the sea, thence called the Icarian sea.

I'o. The daughter of Inachus, turned by Jupiter into a white heifer, but afterward resumed her former shape; was worshipped after her death by the Egyptians, under the name of Isis.

Iphigeni'a. The daughter of Agamemnon and Clytemnestra, who, standing ready as a victim to be sacrificed to appease the ire of Diana, was by that goddess transformed into a white hart and made a priestess.

I'ris. The daughter of Thaumas and Electra; one of the Oceanides, and messenger and companion of Juno, who turned her into a rainbow.

Ixi'on. A king of Thessaly, and father of the Centaurs. He killed his own sister, and was punished by being fastened in hell to a wheel perpetually turning.

Ja'nus. The son of Apollo and Creusa, and first king of Italy, who, receiving the banished Saturn, was rewarded by him with the knowledge of husbandry, and of things past and future.

Ja'son. The leader of the Argonauts, who, with Medea's help, obtained the golden fleece from Colchis.

Jocas'ta. The daughter of Creon. She unwittingly married her own son, Œdipus.

Ju'no. The daughter of Saturn and Ops; sister and wife of Jupiter, the great queen of heaven, and of all the gods, and goddess of marriages and births.

Ju'piter. The son of Saturn and Ops; the supreme deity of the heathen world, the most powerful of the gods, and governor of all things.

Lach'esis. One of the three Fates.

Laoc'oon. A son of Priam and Hecuba, and high priest of Apollo, who opposed the reception of the wooden horse into Troy, for which he and his two sons were killed by serpents.

Laom'edon. A king of Troy, killed by Hercules for denying him his daughter Hesione after he had delivered her from the sea-monster.

La'res. Inferior gods at Rome, who presided over houses and families; sons of Mercury and Lara.

Laver'na. A goddess of thieves.

Lean'der. See *Hero*.

Le'the. A river of hell whose waters caused a total forgetfulness of things past.

Luben'tia. Goddess of pleasure.

Lu'cifer. The name of the planet Venus, or morning star; said to be the son of Jupiter and Aurora.

Luci'na. A daughter of Jupiter and Juno, and a goddess who presided over childbirth.

Lu'na. The moon; the daughter of Hyperion and Terra.

Luper'calia. Feasts in honor of Pan.

Mars. The god of war.

Mede'a. The daughter of Æetes, and a wonderful sorceress or magician; she assisted Jason to obtain the golden fleece.

Medu'sa. The chief of the three Gorgons; killed by Perseus.

Megæ'ra. One of the Furies.

Meg'ara. Wife of Hercules.

Melpom'ene. One of the Muses, presiding over tragedy.

Mem'non. The son of Tithonus and Aurora, and king of Abydon, killed by Achilles for assisting Priam, and changed into a bird at the request of his mother.

Menela'us. The son of Atreus, king of Sparta; brother of Agamemnon, and husband of Helen.

Men'tor. The faithful friend of Ulysses, the governor of Telemachus, and the wisest man of his time.

Mer'cury. The son of Jupiter and Maia; messenger of the gods, inventor of letters, and god of eloquence, commerce and robbers.

Mi'das. A king of Phrygia, who had the power given him of turning whatever he touched into gold.

Miner'va. The goddess of wisdom, the arts, and war; produced from Jupiter's brain.

Min'otaur. A celebrated monster, half man and half bull.

Mnemos'yne. The goddess of memory, and mother of the nine Muses.

Mo'mus. The son of Nox, and god of folly and pleasantry.

Mor'pheus. The minister of Nox and Somnus, and god of sleep and dreams.

Mors. Goddess of death.

Mu'ses. Nine daughters of Jupiter and Mnemosyne, named Calliope, Clio, Erato, Euterpe, Melpomene, Polyhymnia, Terpsichore, Thalia and Urania. They were mistresses of all the sciences, and governesses of the feasts of the gods.

Mu'ta. Goddess of silence.

Na'iades. Nymphs of streams and fountains.

Narcis'sus. A beautiful youth, who, falling in love with his own reflection in the water, pined away into a daffodil.

Nem'esis. One of the infernal deities, and goddess of revenge.

Nep'tune. The son of Saturn and Ops; god of the sea, and, next to Jupiter, the most powerful deity.

Ne'reids. Sea-nymphs.

Nes'tor. The son of Neleus and Chloris, and king of Pylos and Messenia. He fought against the Centaurs, was distinguished in the Trojan war, and lived to a great age.

Ni'obe. Daughter of Tantalus, and wife of Amphion, who, preferring herself to Latona, had her fourteen children killed by Diana and Apollo, and wept herself into a stone.

Nox. The most ancient of all the deities, and goddess of night.

Ocean'ides. Sea-nymphs, daughters of Oceanus; three thousand in number.

Oce'anus. An ancient sea-god

Œd'ipus. King of Thebes, who solved the riddle of the Sphinx, unwittingly killed his father, married his mother, and at last ran mad and tore out his eyes.

Om'phale. A queen of Lydia, with whom Hercules was so enamored that he submitted to spinning and other unbecoming offices.

Ops. A name of Cybele.

Ores'tes. The son of Agamemnon.

Or'pheus. A celebrated Argonaut, whose skill in music is said to have been so great that he could make rocks, trees, etc., follow him. He was the son of Jupiter and Calliope.

Osi'ris. See *Apis*.

Pall'adium. A statue of Minerva, which the Trojans imagined fell from heaven, and with which their city was deemed unconquerable.

Pal'las and **Py'lotis.** Names of Minerva.

Pan. The son of Mercury, and the god of shepherds, huntsmen, and the inhabitants of the country.

Pando'ra. The first woman, made by Vulcan, and endowed with gifts by all the deities. Jupiter gave her a box which contained all the evils and miseries of life, but with hope at the bottom.

Par'is, or **At'exander.** Son of Priam and Hecuba; a most beautiful youth, who ran away with Helen, and thus occasioned the Trojan war.

Parnas'sus. A mountain of Phocis, famous for a temple of Apollo; the favorite residence of the Muses.

Peg'asus. A winged horse belonging to Apollo and the Muses, which sprung from the blood of Medusa when Perseus cut off her head.

Pena'tes. Small statues, or household gods.

Penel'ope. A celebrated princess of Greece, daughter of Icarus, and wife of Ulysses; celebrated for her chastity and constancy in the long absence of her husband.

Per'seus. Son of Jupiter and Danaë; performed many extraordinary exploits by means of Medusa's head.

Pha'eton. Son of Sol (Apollo) and Climene. He asked the guidance of his father's chariot for one day as a proof of his divine descent; but, unable to manage the horses, set the world on fire, and was therefore struck by Jupiter with a thunderbolt into the river Po.

Philome'la. The daughter of Pandion, king of Athens; changed into a nightingale.

Phin'eas. King of Paphlagonia; had his eyes torn out by Boreas, but was recompensed with the knowledge of futurity. Also, a king of Thrace turned into a stone by Perseus.

Pho'bus. A title of Apollo.

Ple'iades. Seven daughters of Atlas and Pleione, changed into stars.

Plu'to. The son of Saturn and Ops, brother of Jupiter and Neptune, and the god of the infernal regions.

Plu'tus. The god of riches.

Pomo'na. The goddess of fruits and autumn.

Polyhym'nia. The Muse of rhetoric.

Pri'am. The last king of Troy, the son of Laomedon, under whose reign Troy was taken by the Greeks.

Prome'theus. The son of Japetus; said to have stolen fire from heaven to animate two bodies which he had formed of clay, and was therefore chained by Jupiter to Mount Caucasus, with a vulture perpetually gnawing his liver.

Pros'erpine. Wife of Pluto.

Pro'teus. The son of Oceanus and Tethys; a sea-god and prophet, who possessed the power of changing himself into any shape.

Psy'che. A nymph beloved by Cupid, and made immortal by Jupiter.

Pyg'mies. A nation of dwarfs only a span long, carried away by Hercules.

Pyl'ades. The constant friend of Orestes.

Pyr'amus and **Thisbe.** Two lovers of Babylon, who killed themselves with the same sword, and thus caused the berries of the mulberry tree, under which they died, to change from white to red.

Py'thon. A huge serpent, produced from the mud of the deluge, killed by Apollo, who, in memory thereof, instituted the Pythian games.

Re'mus. The elder brother of Romulus, killed by him for ridiculing the city walls.

Rhadaman'thus. One of the three infernal judges.

Rom'ulus. The son of Mars Ilia; thrown into the Tiber by his uncle, but saved, with his twin brother, Remus, by a shepherd; became the founder and first king of Rome.

Sa'lii. The twelve frantic priests of Mars.

Sa'lus. Goddess of health.

Saturna'lia. Feasts of Saturn.

Sat'urn. A son of Cœlus and Terra; god of time.

Sat'yrs. Attendants of Bacchus; horned monsters, half goats, half men.

Sem'ele. The daughter of Cadmus and Thebe, and mother of Bacchus.

Semir'amis. A celebrated queen of Assyria, who built the walls of Babylon; was slain by her own son, Ninyas, and turned into a pigeon.

Sera'pis. See *Apis*.

Silo'nus. The foster-father, master and companion of Bacchus. He lived in Arcadia, rode on an ass, and was drunk every day.

Si'rens. Sea-nymphs, or sea-monsters, the daughters of Oceanus and Amphitrite.

Sis'yphus. The son of Æolus; a most crafty prince, killed by Theseus, and condemned by Pluto to roll up hill a large stone, which constantly fell back again.

Sol. A name of Apollo.

Som'nus. The son of Erebus and Nox, and the god of sleep.

Sphinx. A monster, who destroyed herself because Œdipus solved the enigma she proposed.

Sten'tor. A Grecian whose voice is reported to have been as strong and as loud as the voices of fifty men together.

Sthe'no. One of the three Gorgons.

Styx. A river of hell.

Sylvanus. A god of woods and forests.

Ta'cita. A goddess of silence.

Tan'talus. The son of Jupiter, and king of Lydia, who served up the limbs of his son, Pelops, to try the divinity of the gods, for which he was plunged to the chin in a lake of hell, and doomed to everlasting thirst and hunger.

Tar'tarus. The part of the infernal regions to which the wicked were punished.

Tau'rus. The bull under whose form Jupiter carried away Europa.

Telem'achus. The only son of Ulysses.

Terpsich'ore. The Muse presiding over dancing.

The'mis. The daughter of Cœlus and Terra, and goddess of justice.

Ti'phys. Pilot of the ship Argo.

Tisiph'one. One of the three Furies.

Ti'tan. The son of Cœlus and Terra, elder brother of Saturn, and one of the giants who warred against heaven.

Titho'nus. The son of Laomedon, loved by Aurora, and turned by her, in his old age, into a grasshopper.

Tri'ton. The son of Neptune and Amphitrite, a powerful sea-god, and Neptune's trumpeter.

Tro'ilus. A son of Priam and Hecuba.

Troy. A city of Phrygia, famous for holding out a siege of ten years against the Greeks, but finally captured and destroyed.

Ulys'ses. King of Ithaca, who, by his subtlety and eloquence, was eminently serviceable to the Greeks in the Trojan war.

Ura'nia. The Muse of astronomy.

Ve'nus. One of the most celebrated deities of the ancients, the wife of Vulcan, the goddess of beauty, the mother of love, and the mistress of the graces and of pleasures.

Vertum'nus. A deity of the Romans, who presided over spring and orchards, and who was the lover of Pomona.

Ves'ta. The sister of Ceres and Juno, the goddess of fire, and patroness of vestal virgins.

Viri'placa. An inferior nuptial goddess, who reconciled husbands and wives. A temple at Rome was dedicated to her, whither the married couple repaired after a quarrel.

Vul'can. The god who presided over subterraneous fire, patron of workers in metal.

Zeph'yrus. The west wind, son of Æolus and Aurora, and lover of the goddess Flora.

Zeus. A title of **Jupiter.**

A DICTIONARY OF MUSICAL TERMS.

Accellerando, or **Accel.** Quicken the time gradually.

Adagio. Very slow.

Ad Libitum, or **Ad Lib.** At will.

Affettuoso. Affecting, with pathos.

Agitato. Agitated.

Al Fine. To the end.

Allegretto. Somewhat cheerful, but not so quick as *Allegro.*

Allegro. Quick.

Al Segno. To the sign, signifying that the performer must go back to the sign *:S:,* and play from that mark to the word *Fine.*

Amoroso. Lovingly.

Andante. Somewhat slow.

Andantino. Not quite so slow as *Andante.*

Animato. In an animated style.

A poco a poco. Little by little.

Aria. An air or song.

Assai. Very, extremely.

A tempo. In the regular time.

Bis. Twice (repeat).

Brillante. Brilliant.

Calando. Diminishing gradually in tone and speed.

Cantabile. In a graceful, singing style.

Con Moto. In agitated style. With spirit.

Con Spirito. With quickness and spirit.

Coda. A few bars added to terminate a composition.

Colla Voce. With the voice or melody.

Con Brio. With brilliancy.

Con Expressione. With expression.

Crescendo, or **Cres.** Gradually increase the volume of tone.

Da Capo, or **D. C.** Repeat from the beginning to the word *Fine.*

Decrescendo, or **Decres.** Gradually diminish the volume of tone.

Delicato. Delicately.

Del Segno. See *Segno.*

Diminuendo, or **Dim.** Same as *Decrescendo.*

Dolce, or **Dol.** In a sweet, smooth style.

Doloroso. In a mournful, pathetic style.

E. And

Expressivo. / **Expressione.** } With expression.

Fine. The end.

Forte, or **f.** Loud.

Fortissimo, or **ff.** Very loud.

Forzando, or **Fz.** Signifies that the note is to be given peculiar emphasis or force.

Forza. Force.

Fuoco. With fire.

Grave. Extremely slow.

Grazioso. In a graceful, elegant style.

Impromptu. An extemporaneous production.

L. H. Left hand.

Larghetto. Slow and solemn, but less so than *Largo.*

Largo. Very slow and solemn.

Legeremente. Lightly, gayly.

Lentando. Slower by degrees.

Legato. In a smooth and connected manner.

Lento. In a slow time.

Loco. Place, play as written.

Maestoso. Majestic and dignified.

Martellato. Struck with force.

Meno. Less.

Mezzo, or **M.** Neither loud nor soft—medium.

Mezzo Forte, or **mf.** Rather loud.

Mezzo Piano, or **mp.** Rather soft.

Moderato. Moderate.

Molto. Very.

Mosso. Movement.

Moto, or **Con Moto.** With agitation and earnestness.

Morendo. Dying away.

Non Troppo. Not too much.

Obligato. Cannot be omitted.

Ottava, or **8va.** An octave higher.

Patetico. Pathetically.

Pastorale. A soft and rural movement.

Piano, or **p.** Soft.

Pianissimo, or **pp.** Very soft.

Piu. Very.

Poco. A little, somewhat.

Pomposo. Pompous, grand.

Presto. Very quick.

Prestissimo. As quick as possible.

Quasi. As if.

Rallentando, or **Rall.** A gradual diminution of tone and retarding of movement.

Religioso. In a solemn style.

Ritardando, or **Ritard,** or **Rit.** Gradually slower.

Rinforzando, or **Rf.** With additional force.

Ritenuto. Hold back the time at once.

Scherzando. Playfully.

Segue. Continue as before.

Seria. Seriously.

Sempre. Throughout—always.

Semplice. In a simple, unaffected style.

Segno, or **:S:.** Sign; as, *Al segno,* to the sign; *Dal Segno,* repeat from the sign to the word *Fine.*

Senza. Without.

Sforzando. Emphasized.

Sincopato. Forced out of time.

Smorzando. Smoothed, decreased.

Soave. Soft and delicate.

Sotto Voce. In an undertone.

Sostenuto. In a smooth, connected style.

Spirito, or **Con Spirito.** With spirit.

Staccato. Detached, short.

Tempo. In time.

Tempo di Marcia. In marching time.

Tempo di Valse. In waltz time.

Tempo Primo. In the original time.

Trillando. Shaking on a succession of notes.

Tranquillo. Tranquilly.

Tutto Forza. As loud as possible.

Veloce. With Velocity.

Vigoroso. Boldly, vigorously.

Vivace. With extreme briskness and animation.

Vivo. Animated, lively.

Volti Subito. Turn over the pages quickly.

Zeloso. With zeal.

A DICTIONARY OF FAMILIAR ALLUSIONS.

Words and Phrases, Persons, Places, Pictures, Buildings, Streets and Monuments frequently alluded to in Literature and in Conversation.

WHO has not met, either in reading or conversation, with allusions to matters with which he was previously unacquainted? Facts and fancies of history and romance are continually encountered, to which only a liberal education or a wide course of study will give the key. We have gathered below a glossary of the most frequent of these allusions, and we flatter ourselves that the succeeding pages will throw a flood of light upon many interesting topics which to the majority of people have heretofore been dark and inexplicable.

Abderite. Democritus, the original laughing philosopher, was born in Abdera, a Thracian city. From him a scoffer or person given to continual laughing is called an Abderite.

Abraham's Bosom. The rest of the blessed dead.

Abyla and Calpe, the Pillars of Hercules, the exit from the Mediterranean.

Academics. Plato's disciples were so called from the Academy.

Academy. (Academe.) Plato founded his school in a gymnasium of this name near Athens. 368 B. C.

Academy, The French. A French scientific body limited to forty members.

Acadia. Formerly the name of Nova Scotia.

Adam's Apple. A part of the throat where, it is said, a piece of the forbidden fruit lodged.

Admirable Crichton, The. James Crichton, an accomplished Scotchman of the sixteenth century.

Admiral. The highest rank in the Navy.

Æneid. An epic poem by Virgil.

Ages. The five ages of the world according to Hesiod, are the Golden, the Silver, the Brazen, the Heroic and the Iron.

Alabama. A Confederate privateer built in England. Sunk by the Kearsarge June 19th, 1864.

Aladdin's Window, To Finish. Trying to complete another's work. Aladdin's palace was perfect except one window left for the Sultan to finish, but his treasure failed him.

Albany Regency. Name applied sixty years ago to some Democrats at Albany, N. Y.

Albino. A person with white skin and hair and red eyes. The Portuguese so called the white negroes.

Albion. England, so called from the chalky white cliffs.

Aldine Press. Founded by Aldus Manutius at Venice in 1496. Editions of the classics issued from this press were called the Aldine editions. This term is now applied to some elegant editions of English works.

Alexandrian Library. Was founded by Ptolemy Philadelphus. It contained 700,000 volumes, and was burnt 47 B. C.

Alexandrine Age. 323-640, when Alexandria was the seat of the highest culture.

Alhambra. A magnificent palace and a fortress built by the Moors at Granada, in Spain.

All-Hallows. All Saints' day, Nov. 1st.

Allah. Arabic name of God.

Almacks. Assembly room in London where the most exclusively aristocratic balls were given.

Almighty Dollar. A phrase first used by Irving in his Creole Village, and which has become quite common. The title of a play.

Alsatia. A quarter in London where criminals take refuge.

Alto-Relievo. Figures in marble or castings projecting one-half or more from the tablet.

Ambrosia. Food of the Gods.

Anachronism. An error in computing time.

Anacreontics. Poems composed in the manner of Anacreon, a great poet noted for his exact imitation of nature.

Ancien Regime. The French Government previous to the revolution of 1798.

Angling, The Father of. Izaak Walton.

Annus Mirabilis. (Wonderful year.) A. D. 1666. Noted for the great fire in London, the Plague, and an English victory over the Dutch.

Antoninus, The Wall of. Was built by the Romans in A. D. 140 across Scotland between the Clyde and the Frith of Forth; an embankment of earth.

Apollo Belvedere. One of the most beautiful and perfect representations of the human form is the statue of Apollo in the Belvedere Gallery of the Vatican Palace at Rome.

Appian Way. The road from Rome to Capua. The oldest Roman road.

Apples of Sodom. Beautiful fruit, but full of ashes. Applied figuratively to the disappointment of sin.

Apple, Golden. Prize for beauty disputed before Paris, between Juno, Pallas and Venus; awarded by him to Venus.

Arabesque. Decoration in Moorish style.

Arcadian. A shepherd; a Greek grazing country named Arcadia has furnished this word to the poets.

Argo. The ship in which Jason and his fifty-four companions sailed when going to Colchos for the Golden Fleece.

Argonauts. The adventurers on the Argo.

Argus-eyed. Crafty, watchful. Argus had a hundred eyes; the jealous Juno put him on detective duty over Io.

Armada, The Spanish. A fleet of 130 ships gathered by Philip of Spain for the invasion of England in 1500. Queen Elizabeth was busy preparing for resistance when the news came that a storm had completely wrecked the Armada.

Artesian Well. Boring in the earth until water is reached that will flow spontaneously. Their first use was in Artois, France.

Aryans. The stem of the Indo-European peoples.

Astor Library. Founded by John Jacob Astor in New York City.

Athens, The Modern. Boston.

Augustan Age. As the most flourishing period of the Roman literature was during the time of Augustus, that name is given to any age wherein literature is pre-eminent.

Auld Reekie. Scotland.

Avalon. King Arthur's burial-place, Glastonbury.

Ayreshire Poet, The. Burns. His birthplace was near Ayr in Scotland.

Barnburners. A name given some years ago to radical Democrats, a leading man amongst whom was John Van Buren.

Babylonish Captivity. The seventy years' captivity of the Jews at Babylon, 602-538 B.C.

Baconian Philosophy. The inductive philosophy of Lord Bacon.

Balmoral Castle. A Scotch castle owned by Queen Victoria, where she spends most of her time in the summer.

Bank of England. Founded 1694.

Bard of Avon. Shakspere, so called from his home being Stratford-on-Avon.

Barmecide's Feast. A mockery, a delusion and a sham. Barmecide asked a starving beggar to dinner, and seated him at a table of empty dishes.

Basilisk. A mythical serpent with power to kill by merely looking at its victim.

Basso Relievo. Figures in marble and castings that project but a little from the plane.

Bastile. French prison and fortress. People were incarcerated here by *lettre de cachet*, without notice or trial. Destroyed by a mob, 1708.

Battle of the Books. Satire by Dean Swift comparing ancient and modern literature.

Battle of the Kegs. A practical joke on the British General Loring. Detailed in a ballad of the Revolutionary war.

Battery, The. A park in New York City adjoining the river.

Beacon St. The aristocratic residence street of Boston.

Beauty and the Beast. A fairy tale. Beauty lives with the Beast to save her father's life. By her love she disenchants the Beast, who proves to be a great Prince.

Bedlam. A mad-house.

Bee, The Attic. Plato; so called from his honeyed style.

Bee, The Busy. An example of communal industry.

Beelzebub. A Philistine deity.

Begging the Question. Assuming as true what you are to prove.

Belle France, La. Beautiful France.

Belgravia. Fashionable quarter of London.

Bell the Cat. In a convention of mice it was proposed to hang a bell on the cat's neck, to give warning of her coming. No one would serve on the committee.

Bell, The Passing. Rung formerly when persons were dying.

Beloved Disciple, The. St. John.

Bess, Good Queen. Queen Elizabeth.

Bibliotheque National. (National Library.) At Paris; contains over 1,000,000 books, 150,000 MSS.

Billingsgate. Coarse language. Such as is used at the fish market of Billingsgate in London; a fishwife's tongue being said to be remarkably expressive.

Black Death. A plague which desolated Europe, Asia and Africa in the fourteenth century.

Black Friday. Gold panic Sept. 26th, 1869. Immense fortunes lost and won same day. Investigation could never discover the true inwardness of it.

Black Hole of Calcutta. Dark prison cell wherein Surajah Dowlah shut up 146 British soldiers; only 23 lived till morning.

Black Prince, The. Edward, Prince of Wales, son of Edward III.

Black Republicans. The Republican party of U. S. so called when opposing the extension of slavery.

Blarney Stone. Its supposed virtue when kissed is to impart a smooth and oily tongue. Profusion of compliments is called Blarney. This stone is in Blarney Castle, near Cork, Ireland.

Bluebeard. A wife-killing tyrant, in a nursery story.

Blue Laws. Some severe New England statutes were so called.

Blue Stocking. A literary society at Venice in 1400, whose members wore blue stockings, is the origin of this name for a female pedant.

Bohemian. As opposed to Philistine, an artist or literary man living loosely by his wits.

Bois de Boulogne. A Parisian promenade.

Border, The. Frontier of England and Scotland.

Border Minstrel, The. Sir Walter Scott.

Border States. Maryland, Delaware, Virginia, Kentucky, Missouri.

Bourgeoisie. A class of the people of France mostly composed of traders and manufacturers.

Boulevard. A wide street in Paris, in the place of the ancient ramparts.

Bourse. Parisian stock exchange.

Bow Bells. A set of bells in the Church of St. Mary-le-Bow, London. One "born within sound of Bow Bells" is a Cockney.

Bowery, The. A New York thoroughfare.

Boycott. To refuse to have anything to do with a person. To let him severely alone. A trying ordeal passed through by Captain Boycott in Ireland in 1881. No one would sell to him, buy from him, work for him or speak to him.

Brandy Nose. Queen Anne of England.

Breeches Bible, The. An edition in which "aprons" in Gen. iii. 7 is rendered "breeches."

Bride of the Sea. Venice.

Bridge of Sighs. In Venice. Connects Doge's Palace and State Prison. Over this bridge the condemned passed when on their way to be executed.

British Museum. Library and museum in London.

Broadway. The principal business street of New York.

Brook Farm. A Socialistic community to carry out the idea of Fourierism; was founded at West Roxbury, Mass., 1841.

Brother Jonathan. America; an American. Some doubt as to its origin, but it is said to come from Gov. Jonathan Trumbull, of Connnecticut, in speaking of whom Washington would say, "We must consult Brother Jonathan."

Buncombe. Clap-trap speeches, to cajole constituents, more than for immediate effect. Buncombe is in North Carolina. A North Carolina member said a fiery speech was not delivered to the House, but to Buncombe.

Bunker Hill Monument. An obelisk of granite marking the site of the battle of Bunker Hill, fought between the British and Americans, June 17, 1775.

Cachet, Lettres de. (Sealed letters.) Blank warrants with the seal of the French King already affixed for imprisoning or releasing any person in the Bastile.

Caledonia. Scotland.

Calumet. An Indian pipe. In old times a treaty of peace with the red men would be ratified by smoking the calumet.

Campagna. The plains around the city of Rome.

Carbonari. A secret political society organized in Italy, 1820.

Carmagnole. Song and dance in the French Revolution.

Cartesian Philosophy. From Descartes, "I think, therefore I exist."

Castle Garden. At New York City, the landing-place of emigrants.

Catacombs. Subterranean sepulchres. About three miles from Rome in the Appian Way a vast number of long underground passages about three feet wide and ten feet high. On each side in niches were deposited the bodies of the martyrs and early Christians. These niches were closed with tiles or slabs of marble having proper inscriptions on them. During the persecutions the Christians concealed themselves in these caves.

Cavalier Servente. The escort of a married woman.

Cecilia, St. A martyr; patroness of music.

Celestial Empire. China, whose first Emperors were all divinities.

Central Park. The great park of New York City; contains 863 acres.

Champs de Mars. A field in Paris for military manœuvres.

Champs Elysees. A promenade in Paris.

Charter Oak. A tree in Hartford, Conn., in which the Colonial Charter was secreted in 1688. It was blown down in 1856.

Chauvinism. Patriotism of the blatant kind, from Chauvin, one of Scribe's characters.

Cheapside. A thoroughfare in London.

Chiltern Hundreds, To Accept the. A member of the English Parliament cannot resign, and cannot hold office during membership. If he wishes to leave, he can vacate his seat by accepting the office of Steward of the Chiltern Hundreds.

Chiltern Hundreds. A tract in Buckinghamshire and Oxfordshire, England, to which is attached the nominal office of steward under the crown.

Christ Church. The name of the largest college in the University of Oxford.

Cid, The. The Spanish hero, Don Roderigo Laynez, Count of Bivar.

Cincinnati, The. Society of American Revolutionary officers.

Citizen King, The. Louis Philippe of France.

Cockaine, Land of. An imaginary country of ease and pleasure; usually applied to London.

Colossus of Rhodes. A brass statue, one of the wonders of the world, which stood astride the entrance to the port of Rhodes.

Columbia. Poetical name of the United States.

Column of Vendome. A stone pillar in Paris erected by Napoleon, commemorating the successes of the French armies. It was thrown down by the Communists in 1871.

Confederate States. The eleven States which seceded in 1861, Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia.

Congressional Library. At Washington; it is the largest in the United States.

Consols. English public securities.

Copperheads. Northern sympathizers with the South in the Civil war.

Corncrackers, The. Kentuckians.

Corn Law Rhymer, The. Ebenezer Elliott.

Corso. The chief thoroughfare of Rome.

Crapaud, Johnny. A Frenchman.

Credit Mobilier. An authorized stock company. The American Credit Mobilier formed for raising money for the Pacific Railroad raised a foul odor in 1873.

Crocodile Tears. Counterfeit sorrow. A fable says the crocodile weeps as it eats its victim.

Cumberland. A United States vessel sunk by the Confederate ram Merrimac in Hampton Roads, March 8, 1862.

Curfew Bell. At 8 o'clock, the ringing of the curfew bell in old times in England, all lights were extinguished, the fires raked up and covered, and the people of the Kingdom retired to bed. This rule, made by William the Conqueror, lasted for a long time, and even yet there is some sign of its observance in the nine o'clock bell rung in many parts of New England.

Damocles' Sword. Damocles, having commented upon the happiness which the tyrant Dionysius must enjoy, was invited by him to a feast where, whilst discussing the good things, he looked up and discovered a sword hanging by a single hair immediately over his head.

Darby and Joan. The loving couple.

Darwinian Theory. An explanation of the origin of species in animals, that they come from one or a few original forms, the present differences resulting from development and natural selection.

De Profundis. The 130th Psalm; part of the burial service.

Debatable Ground. Land on the western border of Scotland, disputed between England and Scotland.

Defender of the Faith. Henry VIII. received this title from Pope Leo. X., and his successors have borne it ever since.

Directory, The French. By the Constitution of 1795, the executive power was vested in five Directors; it lasted only four years.

Dixie, The Land of. The Southern States.

Dizzy. The nickname of Benjamin Disraeli, Earl of Beaconsfield.

Doctors' Commons. The place where the Ecclesiastical Court sat in London.

Doctrinaire. A cant term in French politics, given to the proposer of an impracticable compromise measure.

Doe, John. The fictitious plaintiff in ejectment suits, the defendant being Richard Roe.

Doomsday Book. Compiled by order of William the Conqueror. It contained a survey and an estimate of value of all the lands in England.

Donnybrook Fair. A once celebrated annual fair near Dublin.

Douay Bible, The. The English Bible authorized by the Roman Catholic Church; first published at Douay, France.

Downing Street. The official residence of the English Prime Minister since the time of Sir Robert Walpole is in Downing Street, London.

Drury Lane Theater. In London; was opened in 1688

Dying Gladiator. An ancient statue in the Capitol at Rome.

Eastern States, The. Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut.

Ecce Homo. A painting by Correggio representing the Savior crowned with thorns.

Ecole Polytechnique. A Parisian school, the graduates of which are given places in the public service.

El Dorado. A fabulous region in South America, surpassing all other countries in the production of gems and precious metals. A name for any wealthy country.

Elephant, Seeing the. Seeing the world.

Elgin Marbles. A collection of Greek sculptures made by Lord Elgin. Now in the British Museum.

Escurial, The. A royal residence built by Philip II.; it is the largest structure in Spain, and one of the most splendid buildings in Europe. It is 22 miles from Madrid and contains a palace, a church, a monastery, free schools and a mausoleum.

Eternal City, The. Rome.

Eureka. (I have found it.) Exclamation of Archimedes when he discovered the method of proving that the sum of the squares of the sides of a right-angled triangle equaled the square of the hypothenuse.

Evangelists, Symbols of the. Matthew has a scroll before him and holds a pen; Mark , its writing, with a winged lion by his side; Luke has a pen and a scroll, near him is an ox; John is a young man behind whom is an eagle.

Exclusion, Bill of. A bill which passed the English House of Commons in 1679, proposing to exclude the Duke of York from the throne because he was a Roman Catholic.

Expounder of the Constitution, The. Daniel Webster.

Fabian Policy. Delaying; dilatory. From Quintus Fabius Maximus, the Roman General who successfully opposed Hannibal, the Carthaginian, by avoiding a battle and continually harassing him.

Fabius, The American. George Washington.

Fairmount Park. In Philadelphia, where the Centennial Exhibition of 1876 was held; contains nearly 3,000 acres.

Faineants, Les Rois. (Do-nothing Kings.) The last twelve Kings of the Merovingian Dynasty were so called. For about 100 years previous to 720, when Pepin dethroned Childeric III., they were mere puppets, and the supreme authority was exercised by the mayors of the palace.

Falernian. A celebrated ancient Italian wine grown at Falernum.

Faneuil Hall. In Boston, built 1742; called the "cradle of Liberty," for there the Revolutionary patriots were wont to assemble.

Farmer George. George III. of England; so called from his love of agriculture.

Fata Morgana. A mirage in the Straits of Messina.

Father of his Country. George Washington.

Fathers of the Latin Church. St. Ambrose of Milan, St. Augustine, St. Bernard, St. Hilary, St. Jerome, Lactantius.

Faubourg St. Antoine. The part of Paris where the workingmen live.

Faubourg St. Germain. Aristocratic part of Paris.

Fenians. A society of Irishmen formed in the United States in 1865 to free Ireland.

Field of the Cloth of Gold. Plain in France where Francis I. and Henry VIII. met on a mutual visit. It is historical on account of the gorgeous display, both parties being most extravagant in their outfit.

Fifth Avenue. A celebrated residence street in New York.

Fighting Joe. The American General Joseph Hooker.

First Gentleman in Europe. George IV. of England.

Five Points. A once notorious locality in New York,

Flagellants. Religious fanatics of the thirteenth century who went about naked and scourging themselves.

Fleet, The. A London prison taken down in 1845.

Flowery Kingdom, The. China.

Flying Dutchman. A spectre ship cruising about the Cape of Good Hope. Foreboades trouble to whoever sees it.

Forte. Strong point.

Fort Sumter. In the harbor of Charleston, S. C. Here were heard the first sounds of the cannons' thunder in the late Civil war.

Fourierism. Charles Fourier, a French visionary, proposed a system of communism in which the world should be divided into "phalansteries" of four hundred families who were to live and work in common.

Freshman. A student in his first year at college.

Funk, Peter. A mock auction; a person employed to act as an apparent purchaser and bid up articles for sale.

Gadshill. Near Rochester, in Kent, England. Place where Falstaff met so many men in buckram. Charles Dickens' residence was at Gadshill.

Genre Painting. Represents ordinary domestic and rural scenes.

George, St., and the Dragon. St. George, the patron saint of England, is said to have slain in Libya a hideous dragon whose daily food was a virgin.

Gerrymander. The geographical apportionment of districts to give preponderance to one political party. Started in Massachusetts, and named from its Governor, Elbridge Gerry. Example, a shoestring district in Missouri.

Ghetto. The quarter in Rome to which the Jews were formerly restricted.

Ghibelline. One of a faction in Italy in the thirteenth century, which favored the German Emperors, in opposition to the Guelphs, adherents of the Pope.

Girondists; The Gironde. Moderate "Constitutional" Republican party in the French Revolution in 1798.

Glencoe. A pass in Argyleshire, Scotland. Here, February 13, 1691, were massacred thirty-eight of the McDonalds by one hundred and twenty soldiers under Capt. Campbell.

Gobelins. A tapestry and carpet manufactory at Paris, founded by Gobelin, a dyer, about 370 years ago.

Godiva, Lady. Wife of Leofric, Earl of Mercia, who offered to remit certain exactions to his tenants if she would ride naked through the streets of Coventry. She did so, all the people closing their doors and keeping within except one, "Peeping Tom," who was struck blind for peeping at her.

Golconda. The neighborhood of some rich diamond mines in India.

Gold Fever. 1849; peopled California.

Golden Age. A period of innocence and prosperity. Nearly always refers to some past age.

Golden Gate. The entrance to the harbor of San Francisco.

Golden Horn. The estuary of the Bosphorus, upon whose banks Constantinople is built.

Gordian Knot. A difficulty; an obstacle. Gordius, King of Phrygia, consecrated to Jupiter a wagon, the beam and yoke of which were tied together by such an intricate knot that no one could unravel it. An oracle having foretold that he who could untie this knot would be master of Asia, Alexander cut it asunder with his sword.

Gordon Riots, The. In 1780 in London, the bill passed by the House of Commons for the relief of the Roman Catholics caused so much ill feeling that Lord George Gordon, a fanatic, incited the mob to try and force its repeal. Dickens in his Barnaby Rudge gives a vivid description of these riots.

Gotham. A name sometimes applied to New York City.

Gotham, The Wise Men of. Noted for their folly. Gotham was an English village.

Great Commoner, The. William Pitt.

Great Duke, The. Wellington.

Great Eastern. The largest vessel ever launched. She was built to carry 1,000 passengers and 5,000 tons of cargo. Her chief work has been in the laying of ocean telegraph cables.

Great Pyramid, The. Is at Gheezeh, Egypt. It is 484 feet high.

Greenbacks. United States Treasury notes. So named from their color.

Green Isle, The. Ireland. Sometimes also called the Emerald Isle.

Greenwood. A cemetery in Brooklyn, N. Y.

Gregorian Year. 1582; it being proved that the years were eleven minutes shorter than what they were counted at, Gregory XIII. took ten days of October out of that year and advanced the dates so as to correct the calendar. The reform has been accepted throughout Christendom, except in Russia. Example: George Washington, born February 11, O. S.

Gretna Green. A Scotch village famous for runaway matches.

Grub Street. In London; used to be noted for its literary denizens.

Guelphs. The adherents in the thirteenth century of the Papacy against the German Emperors. They were the constant opponents of the Ghibellines, and between them Italy was kept in turmoil.

Guildhall. The London town hall.

Gunpowder Plot, The. A plot to blow up the English Parliament in its House, November 5, 1605. A cellar underneath was stored with gunpowder intended to be touched off during the session by Guy Fawkes. The discovery was made in time to prevent mischief. To use a modern but inelegant phrase, the plot was considered by some people to be "a put-up job."

Gyges' Ring. A ring which made the wearer invisible. Gyges, having found a man's corpse in a brazen horse that he discovered in a cave, took a ring from the finger of the dead that rendered him invisible. By using this ring he entered unseen the chamber of the King of Lydia and murdered him. He became King.

Habeas Corpus Act, The. Was passed in the time of Charles II. and provides that the body of any person restrained of his liberty must on proper application be brought before a Judge and the reason of hisc onfinement stated. The Judge will then determine the amount of bail he shall furnish, or he will remand him to prison or allow him his freedom, as the case may require.

Halcyon Days. A period of happiness; days of peace and tranquility. The halcyon, as the kingfisher was anciently called, was said to lay her eggs in nests on rocks near the sea during the calm weather about the winter solstice.

Handicap. Apportionment of the weights that must be carried in a race by different horses, considering their age and strength, to equalize their chances.

Hansard. Name of the firm which prints the debates of the British Parliament.

Hanse Towns. In the twelfth century some commercial cities in the north of Germany formed an association for the protection of commerce. To these other similar cities in Holland, England, France, Spain and Italy acceded, and for centuries this confederacy commanded the respect and defied the power of Kings.

Hanseatic League. The name of the confederation of Hanse towns. There were seventy-two cities in the league, and they held triennial conventions called Hansa. It has long since fallen to pieces. Four of its members, Lubeck, Hamburg, Bremen and Frankfort, are called free cities, but are really part of the German Empire.

Hare, Mad as a March. The hare is wilder than usual in March.

Harpies. Three ravenous and filthy monsters, each having a woman's face and the body of a vulture. Their names were Aello, Ocypete and Celeno. Juno sent them to plunder the table of Phineus.

Hari-Kari. (Happy dispatch.) Japanese official suicide.

Harvest Moon. The full moon at or nearest the fall equinox; rises for a number of days about sunset.

Heathen Chinee, The. A poem.

Heidelberg Castle. Ruins near Heidelberg, Germany.

Hegira. The date of Mohammed's flight from Mecca, July 16th, 622. The epoch from which the Mohammedans compute their time.

High Church. The more conservative portion of the Episcopal Church.

High Seas, The. The sea beyond three miles from the coast.

History, The Father of. Herodotus, the Greek historian.

Hobson's Choice. Take what is offered or go without. Tobias Hobson, an English stable-keeper, made whatever customer came to hire a horse take the one nearest the door.

Holborn. A street in London by which criminals used to be carried out to execution at Tyburn.

Holy Alliance. Formed in 1816 by Austria, Prussia and Russia.

Holy Family, The. The name of pictures representing in group the infant Jesus, St. Joseph, the Blessed Virgin, John the Baptist, Anna, and St. Elizabeth. The most celebrated are by Michael Angelo at Florence, by Raphael in London, and by Leonardo da Vinci in the Louvre.

Holy Land, The. Palestine.

Holy League, The. The alliance of Pope Julius II., France, Germany, Spain and some of the Italian Republics in 1508, against Venice.

Honi soit qui mal y pense. (Shame to him who evil thinks.) Motto of the highest order of knighthood in Great Britain, that of the Garter, instituted by Edward III. At a ball, a garter of the Countess of Salisbury, having fallen off, was picked up by the King, who expressed himself in the above phrase and fastened it around his own knee. This incident led to the formation of the order.

Honors of War. Allowing a surrendered enemy to keep his arms.

Hotel de Ville. The city hall in French and Belgian cities.

Houris. Beautiful virgins of Paradise; promised by the Koran for the delight of the true believers.

Hundred Days, The. From March 20, 1815, when Napoleon escaped from Elba, to June 22, 1815, when he abdicated.

Iconoclast. (Image-breaker.) A radical reformer.

Iliad. A Greek epic poem by Homer, relating the story of the siege of Troy by the Greeks.

Independence, Declaration of. Issued July 4, 1776.

Independence Hall. In Philadelphia, Pa., where Congress met and adopted the Declaration of Independence.

Index Expurgatorius. A list of books forbidden to be read by the Roman Catholic Church.

Inns of Court. The four London law societies which have the sole right of admitting candidates to the Bar. They are Gray's Inn, Lincoln's Inn, the Inner Temple and the Middle Temple.

Inquisition. A tribunal established in some countries to try heretics.

Irish Agitator, The. Daniel O'Connell.

Iron City, The. Pittsburg, Pa.

Iron Duke, The. The Duke of Wellington.

Iron Mask, The Man in the. A mysterious French state prisoner.

Jack Ketch. The hangman. The name of an English hangman.

Jack Robinson. Before you can say Jack Robinson; at once. Jack Robinson was noted for the shortness of his visits; the servant had scarcely time to repeat his name, before he would leave.

Jack, The Giant Killer. A nursery hero.

Jack, The American, or Union. The blue ground of the American flag with the stars but without the stripes.

Jacobins. A revolutionary club, 1789, in Paris, held its meetings in what had been the Jacobin Monastery. They were violent and extreme in the measures they proposed. Their name spread to all similar organizations and to individuals acting with them throughout France.

Jacobites. Adherents of James II. of England, and of the Stuarts, his descendants.

Jardin des Plantes. Botanical and zoological garden in Paris.

Jardin Mabille. Of world-wide notoriety. A Parisian resort where the can-can flourished. Suppressed in 1882.

Jericho, Gone to. Disappeared; ruined.

Jerusalem Delivered. An Italian epic poem by Torquato Tasso.

Jingo, Jingoism. Expression applied in England to those who wanted the English Government to assume an aggressive foreign policy, 1874-1880.

John Bull. England. Nickname for an Englishman.

John Chinaman. The Chinese in America.

Johnny Cakes. Made of Indian meal baked in the ashes.

Jubilee, Year of. Among the Jews the jubilee came every fiftieth year, which was the year after one week of weeks of years had passed (seven times seven). All slaves who were of Hebrew blood were freed, all debts were canceled and all lands returned to original owners during the jubilee. In the Roman Catholic Church it is observed every twenty-fifth year.

Juggernaut. A Hindoo god who has a famous temple in India. There is an immense car in the service of this god, which, when moved about the country, causes the greatest excitement. The car resembles a large building and its weight is very heavy. It is dragged along by the multitude and their fanaticism is so great that crowds of devotees cast themselves under the wheels and are crushed to death, a fate which they believe ensures paradise.

Julian Era, The. A method of reckoning time from 46 B.C., when Cæsar reformed the calendar.

Junius, Letters of. Some remarkable political letters written during the reign of George III. Their authorship is unknown.

Kansas, Bleeding. So called by Horace Greeley during the Free Soil controversy.

Kensington Gardens. A London Park near which Queen Victoria was born.

Kilkenny Cats, The. Disputing people; from the old verse:

There once were two cats in Kilkenny,
Who each thought there was one cat too many,
So they howled and they fit, and they scratched and they bit,
Until instead of two cats there wasn't any.

King can do no wrong, The. Meaning that the Ministers and not the King are responsible for mistakes of government.

King of Ivetot. The Seigneur of Ivetot was made king of his estate by the King of France as a recompense for the killing of his father. It was a kingdom of eight square miles.

King Cole. A legendary king of Britain, who affected tobacco and spirits.

King Cotton. A name given to the great Southern industry before the war.

King's Evil. The scrofula. So called from the belief that a king's touch would cure the disease.

King Log. A good-for-nothing ruler. The name comes from one of Esop's fables, wherein Jupiter puts a log to rule over the frogs.

King-Maker, The. Richard Nevill, the Earl of Warwick, who set up and deposed kings at his will during the Wars of the Roses, in the fifteenth century.

King Stork. A tyrant. The sequel to the Esop fable mentioned above. The frogs grew tired of King Log, whereupon King Stork was brought in at their request, who devoured the whole community.

Kit Kat Club, The. A London club founded in 1688. It had many eminent members.

Knickerbocker. A member of any old Dutch family in New York. Derived from Irving's immortal history.

Knight of Malta. A chivalric and monastic order founded during the Crusades, also called the Knights Hospitallers of St. John.

Know-Nothings. A political party in the United States, whose cardinal principle was opposition to foreign office-holders.

Koh-i-Noor. A Golconda diamond, the largest in the world, now one of the crown diamonds of England. Value, $625,000.

Koran, The. The Mohammedan Bible.

Kremlin, The. The royal Russian residence in Moscow.

Labyrinth, The. A celebrated structure built by Minos, King of Crete, which consisted of a maze out of which no one who entered could find the way back.

Laconic. Curt. So called from the brief speech in fashion in old Laconia, afterwards called Sparta.

Lacrymal Christi. An Italian wine.

Lake School, The. A society of English poets consisting of Coleridge, Wordsworth and Southey.

Land of Bondage, The. Egypt.

Land o' Cakes, The. Scotland.

Land of Nod, The. Sleep; Dreamland.

Land of Promise, The. Canaan, the goal of the Jewish wanderings in the wilderness.

Lang Syne. Long ago.

Langue d'Oc. Provence, a part of France so called from the dialect in use.

Langue d'Œil. All of France except Provence.

Laocoon, The. A celebrated statue in the Vatican representing Laocoon strangled by serpents.

Laodicean. A person luke-warm in religion.

Lares and Penates. The household gods.

Last Judgment, The. The theme of a number of frescoes of the Renaissance period in Italy.

Last Supper, The. Similar to the above. Leonardo da Vinci's best canvas is on this subject.

Lateran Palace, The. One of the Papal residences at Rome.

Laughing Philosopher, The. Democritus of Abdera, who believed that life was only to be laughed at.

Leaning Tower, The. A celebrated structure at Pisa, Italy, which leans thirteen feet out of the perpendicular; 178 feet high.

Learned Blacksmith, The. Elihu Burritt.

Leonine Verses. Verses which rhyme at the middle and the end.

Libby Prison. A Confederate gaol for prisoners of war at Richmond, Va.

Lilliput. The pigmy land in Gulliver's travels.

Lingua Franca. A dialect of French, Italian and Arabic spoken on the Mediterranean Sea.

Lion and Unicorn. The supporters of the British royal arms.

Lion of the North, The. Gustavus of Sweden, the great leader of the Protestant forces during the Thirty Years' War.

Lion's Share. The bigger portion in a division. So called from one of Esop's fables.

Little Corporal, The. Napoleon Bonaparte.

Little Giant, The. Stephen A. Douglass.

Lloyds. The originators of marine insurance.

Lombard Street. The financial street of London.

Lone Star State, The. Texas.

Long Parliament. The Parliament which sat for thirteen years at the beginning of the civil war in England. It sat from 1640 to 1653.

Lorelei. A malignant but beautiful water-sprite of the Rhine.

Lotus-Eaters, The. Homer in the Odyssey describes the effect of eating the lotus as making the eater forget his home.

Louvre, The. The art palace of Paris.

Low Church, The. A part of the Episcopal Church which is opposed to ceremonials.

Lusiad, The. The Portuguese epic poem, written by Camoens, describing Vasco da Gama's adventures.

Lynch Law. Mob law. The name comes from a Virginia farmer who instituted the first vigilance committee in America.

Mab, Queen. The queen of the fairies. So called from an Irish fairy princess named Medh, who flourished in the night of time.

Macadamize. Paving with broken stones. So called from the inventor, Sir John MacAdam.

Macaronic Verse. A verse made by mixing different languages.

Machiavellism. Political trickery.

Madam Tussaud's Exhibition. A famous London wax-works show.

Mad Poet, The. Nathaniel Lee, an insane English dramatist.

Madman of Macedonia, The. Alexander the Great.

Madman of the North, The. Charles III. of Sweden.

Madonna. The Blessed Virgin.

Maecenas. A noted patron of poets during the reign of Augustus of Rome.

Magna Charta. The charter making the cornerstone of English liberty, extorted from King John Lack-Land.

Mahomet's Coffin. The body of Mahomet is said to hang in mid-air over Medina.

Maid of Orleans. Joan of Arc.

Maid of Saragossa. Augustina Zaragoza, the heroine of the siege of Saragossa in 1808-9.

Maiden Queen, The. Elizabeth of England.

Maine Law. A prohibitory law first adopted in Maine.

Malthusian Doctrine, The. The theory that the population of the world is growing faster than the food supply.

Mammoth Cave. A cave near the Green River, Kentucky, the largest cave in the world.

Man in the Moon. According to the legend the man who first broke the Sabbath.

Mar of Destiny. Napoleon Bonaparte.

Man of Iron, The. Bismarck.

Man of Straw. An irresponsible person.

Mare's Nest. A matter which seems of importance but turns out to be nothing.

Marriage a la Mode. The title of six satirical pictures by Hogarth.

Marseillaise. The French national air, composed by Rouget de Lisle.

Martinet. A strict disciplinarian. So called from a French officer of the seventeenth century.

Mason and Dixon's Line. The north boundary of the Slave States, dividing Virginia and Maryland from Pennsylvania.

Mausoleum. The tomb of Mausolus, built by Queen Artemisia, one of the seven wonders of the world.

Mayfair. The west end of London.

Mercator's Projection. (Or Mercator's Chart), is so called after Gerard Mercator, a Flemish geographer of the sixteenth century, the first to give an unbroken view of the whole surface of the earth. In it all the meridians are straight lines *perpendicular* to the equator, and all the parallels *parallel* to the equator, the effect being to greatly exaggerate the polar regions.

Merry Andrew. A buffoon, from Andrew Borde, the whimsical physician of Henry VIII.

Merry Monarch, The. Charles II. of England.

Mesmerism. Takes its name from Mesmer, a German physician.

Mezzo Relievo. Carved or cast figures projecting from the tablet a little more than basso relievo, and something less than alto relievo, are called mezzo relievo.

Middle Ages, The. The period between the destruction of the Roman Empire and the revival of learning in Italy—476 to 1500.

Middle States, The. New York, Pennsylvania, New Jersey and Delaware.

Minnesingers. (Love singers.) The German lyric poets of the twelfth and thirteenth centuries.

Miserere. The fifty-first psalm.

Mississippi Bubble, The. A hollow financial scheme.

Missouri Compromise, The. A measure that prohibited slavery north of 36° 30′ north latitude.

Mistress of the Seas. England.

Molly Maguires. A secret society in the United States. Many crimes were attributed to it, especially in Pennsylvania.

Monarch, Le Grand. Louis XIV. of France.

Monroe Doctrine. The United States is not to meddle in European affairs, nor to allow European Governments to meddle in the affairs of the American Continent.

Mont de Piete. A pawnbroker's shop.

Montmartre. A Parisian cemetery.

Monumental City, The. Baltimore, Md.

Morey Letter, The. A forged letter attributing to Gen. Garfield anti-Chinese sentiments, 1880.

Morganatic Marriage. A marriage between a man of high rank and a woman of a lower one. She does not take her husband's title.

Mother of Presidents. Virginia; having produced seven Presidents of the United States.

Mother Carey's Chickens. Stormy petrels.

Mother Goose. She lived near Boston, and was a nursery rhymer. She sung rhymes to her grandson Thomas Fleet, who printed them in 1819.

Mount Vernon. The home of Washington, in Virginia.

Muscular Christianity. An expression of Charles Kingsley. "A sound mind in a sound body."

Music of the Spheres. Order, harmony. Plato taught that each planet had a siren whose song harmonized with the motion of our sphere and with that of the others.

Namby-Pamby. Childish. A term used for poor literary productions.

Nantes, Edict of. A decree issued at Nantes, France, in 1508, by Henry IV., granting toleration to the Protestant religion. Revoked by Louis XIV., October 22, 1685.

Nation of Shop-keepers. The name given to the English by Napoleon.

Natural Bridge, The. A natural arch over Cedar Creek near James River in Virginia. It is 200 feet high.

Newgate. A London prison.

New World. The Americas.

Nibelungen Lied. A German epic poem of the thirteenth century.

Nine Worthies, The. Joshua, David, Judas Maccabæus, Hector, Alexander, Julius Cæsar, Arthur, Charlemagne and Godfrey of Bouillon.

Noctes Ambrosianæ. The title of a work by Prof. Wilson (Christopher North).

Noel. Christmas day.

Non-Conformists. Dissenters from the Church of England.

Northern Giant, The. Russia.

Notre Dame. The Cathedral of Paris.

Odyssey A narrative poem of the adventures of Ulysses on his voyage from Troy to Ithaca-Homer.

Ogres Giants who feed on human flesh.

Oi Polloi. The multitude.

Old Abe Abraham Lincoln.

Old Bailey. A London criminal court.

Old Dominion, The. Virginia.

Old Guard, The. A favorite regiment of Napoleon Bonaparte. In the Chicago Convention, 1880, the friends of Gen. Grant received this name.

Old Hickory. Gen. Andrew Jackson.

Old Probs. (Old Probabilities.) The U. S. Signal Service.

Old Public Functionary. President James Buchanan.

Old South, The. A famous church in Boston, Mass.

Orangeman. A Protestant Irishman. Member of an organization which cherishes the memory of William Prince of Orange.

Orange Peel. Sir Robert Peel.

Ordinance of 1787. An act fixing the government of the Northwest Territory of the United States.

Orlando Furioso. An Italian poem by Ariosto.

Ossian. The son of Fingal, a Scotch bard. Ossian's poems, published in 1760, were the work of James Mc Pherson, a gifted Caledonian.

Ostend Manifeso. Was issued by the United States Ministers to England, France and Spain during Pierce's administration, declaring that Cuba must belong to the United States.

Ostracism. The Athenians expelled every public man against whom a sufficient number of votes were cast. The votes were written on oyster shells.

Palimpsest. A parchment having the original writing erased and new writing substituted.

Pall Mall. A street in London.

Palladium. Is something that affords defence, protection and safety. A statue of Pallas was the palladium of Troy.

Pantheon. A circular building in Rome erected in the time of Augustus. It is now a church, the Rotonda.

Paradise Lost. A poem by John Milton treating of the fall of man.

Paradise Regained. Poem by Milton on the temptation and triumph of Jesus.

Paris of America, The. Cincinnati.

Parthenon. A temple of Minerva in Athens.

Partington, Mrs. The American Mrs. Malaprop. The creation of B. P. Shillaber.

Pasquinade. A lampoon or satirical writing. Political squibs used to be posted on an old statue that stood in Rome near the house of a sneering old cobbler named Pasquin.

Peeler. A policeman. Sir Robert Peel founded the Irish constabulary.

Peninsular War. The war between England and France in Spain and Portugal, 1808-1812.

People's William. William E. Gladstone.

Pere-la-Chaise. A cemetery near Paris.

Philippic. An invective. The orations of Demosthenes against Philip of Macedon originated this word.

Philistine. A word in use in the German universities for a person below caste.

Philosopher's Stone, The. A substance supposed to have the property of turning anything else into gold.

Plon-Plon. Prince Napoleon J. C. Bonaparte.

Plumed Knight, The. J. G. Blaine, American statesman.

Plymouth Rock. The rock at Plymouth, Mass., where the Pilgrims landed in 1620.

Poet's Corner. A corner in Westminster Abbey where poets are buried. The poetical column in a newspaper.

Pons Asinorum. (The bridge of asses.) Fifth proposition, first book Euclid's Geometry.

Poor Richard. Benjamin Franklin.

Porkopolis. Cincinnati.

Prater, The. A promenade in Vienna, Austria.

Phœnix. A mythical bird, without a mate, renews itself every five hundred years by being consumed in a fire of spices, whence it rises from the ashes and starts for a new flight.

Pied Piper of Hamelin, The. Not being paid for having drawn, by the sound of his pipe, the rats and mice out of Hamelin into the river, he piped the children of the town into Koppelberg hill, where 130 of them died.

Pigeon English. A mixture of English, Chinese and Portuguese.

Protestant Duke, The. The Duke of Monmouth, natural son of Charles II. of England.

Pyramids. A number of remarkable old structures in Egypt.

Quaker City, The. Philadelphia, Pa.

Quaker Poet, The. John G. Whittier.

Quartier Latin. A district of Paris inhabited principally by students.

Queen of the Antilles. The island of Cuba.

Ranz des Vaches. The air the Swiss mountaineers play on the Alpine horns when tending their cattle.

Railway King, The. George Hudson, an Englishman.

Rebellion, The Great. The war between Charles I., of England, and Parliament.

Red Letter Day. A fortunate day. In old calendars a red letter was used to mark the saints' days.

Red Tape. Official routine.

Reign of Terror. The time during the French Revolution between the overthrow of the Girondists, May 31, 1793, and the fall of Robespierre, July 27, 1794.

Reynard the Fox. A romance of the fourteenth century.

Rialto, The. A bridge over the Grand Canal, Venice.

Rights, Declaration of. An instrument securing annual Parliaments, trial by jury, free elections, the right of petition, and denying to the crown the privilege of keeping a standing army or of levying taxes, was drawn up after the revolution of 1689, and accepted by William and Mary.

Roost, To Rule the. To take the leading part.

Robert the Devil. The first Duke of Normandy.

Robin Goodfellow. Puck, a celebrated fairy.

Roland for an Oliver, A. Tit for tat. Roland and Oliver, two peers of Charlemagne. So many romances were related of these knights that, whenever one told an improbable story to match one that had been told before, it was called giving a Roland for an Oliver.

Rossius, The British. David Garrick.

Rough and Ready. Gen. Zachary Taylor.

Round Robin. A petition or remonstrance signed by the names in a circle, so as to conceal who signed it first.

Round Table, The. King Arthur's knights sat at a round table so that any distinction of rank was avoided.

Roundheads. The Puritans, who wore short hair.

Royal Martyr, The. Charles I. of England.

Royal Society, The. A society for the advancement of natural science, founded at London, 1645.

Rozinante. The horse of Don Quixote.

Rubicon, To Pass the. To take an irretrievable step. When Cæsar crossed the Rubicon he became an enemy of the Republic.

Rule Britannia. An English song.

Rump Parliament, The. A remnant of the Long Parliament broken up by Cromwell.

Rye House Plot. A conspiracy in 1683 to assassinate Charles II. and the Duke of York. Rye House was the name of the conspirators' place of meeting.

Sabbath Day's Journey. About one mile.

Sack, To Get the. To be discharged. The Sultan, when he wants to be rid of one of his haram, has her put into a sack and thrown into the Bosphorus.

Sadducees. A sect of the ancient Jews who denied the resurrection of the dead and the expectation of a future state.

Sagas. Scandinavian books containing the Northern legends.

Saint Bartholomew, Massacre of. Massacre of the French Huguenots in the reign of Charles IX., on St. Bartholomew's day, 1572.

Sailor King, The. William IV. of England.

Saint Cloud. A once famous French palace, destroyed in the Franco-Prussian war.

Saint James, The Court of. The English court, so called from the Palace of St. James in London, formerly a royal residence.

Saint Mark's. Cathedral of Venice, Italy.

Saint Paul's. The cathedral of London; designed by Sir Christopher Wren.

Saint Peter's. At Rome; is the most splendid church building in the world.

Saint Sophia. A mosque in Constantinople, Turkey.

Saint Stephens. A Gothic cathedral in Vienna, Austria.

Salt River. Oblivion. Gone up Salt River is generally taken to mean political defeat.

Sambo. Nickname for colored man.

Sanctum. One's private office.

Sandwich. A piece of meat between two pieces of bread.

Sang Azul. Of aristocratic descent.

Sanhedrim. The Jewish court of seventy elders.

Sans Culottes. (Without trousers.) The French revolutionists.

Sans Souci. Palace of Frederick the Great, at Potsdam, near Berlin.

Santa Croce. A church in Florence, Italy, the burial-place of Michael Angelo, Galileo, Machiavelli and others.

Saturnalia. A festival in honor of Saturn observed annually by the Romans by giving way to the wildest disorders. Unrestrained license for all classes, even to the slaves, ruled the city for three days, December 17, 18 and 19.

Schoolmen. The mediæval theologians.

Scotland Yard. The headquarters of the London police.

Scourge of God, The. Atilla, King of the Huns.

Scratch, Old. The Devil.

Scylla. (Avoiding Scylla he fell into Charybdis.) In trying to avoid one danger he fell into another. Scylla and Charybdis were the two dangers in the Straits of Messina, Italy.

Sea-girt Isle, The. Great Britain.

Secessia. The seceding Southern States.

Secular Games. Games held by the Romans once in a century.

Semiramis of the North. Catherine II., Empress of Russia.

September Massacres. The massacre of the French Royalist prisoners in Paris, September 2, 3 and 4, 1792. About 8,000 were killed.

Septuagint. A Greek version of the Old Testament prepared by seventy doctors.

Seven-hilled City, The. Rome.

Seven Wonders of the World. The pyramids of Egypt; the Temple of Diana at Ephesus; the hanging gardens of Babylon; the Colossus at Rhodes; the Mausoleum at Halicarnassus; the statue of Zeus by Phidias at Olympus; and the Pharos (or light-house) of Alexandria in Egypt.

Seven Years' War. The war of Frederick the Great against France, Austria and Russia, 1756 to 1763.

Shamrock. The emblem of Ireland. St. Patrick made use of it to prove the doctrine of the Trinity.

Spanish Main. The southwestern part of the Gulf of Mexico.

Sphinx. An emblem of silence and mystery. A monument near Cairo, Egypt; half woman, half lion.

Stabat Mater. A Latin hymn on the Crucifixion.

Six Hundred, Charge of the. At the battle of Balaklava, October 25, 1854, by a mistaken order, the British light cavalry, 670 strong, made a most gallant charge on the Russians.

Sleeping Beauty, The. A fairy tale.

Smell of the Lamp. A phrase first applied to the orations of Demosthenes, showing their careful and labored preparation. Demosthenes studied in a cave by lamplight.

Song of Roland. An old French poem recounting the deaths of Oliver and Roland at Roncesvalles.

Shibboleth. A countersign. The password of a secret society. When the Ephraimites, after being routed by Jepthah, tried to pass the Jordan, they were detected by not being able to pronounce properly the word Shibboleth.

Sick Man, The. The Ottoman Empire.

Sinews of War, The. Money.

Single-Speech Hamilton. An English statesman of the eighteenth century, W. G. Hamilton. He never made but one speech, but that one was most eloquent.

Stalwart. A member of the Republican party of the United States clinging to the principles and practices of the party. His opposite, a "Half-breed," is a Republican unwilling to be controlled by the party leaders.

Star Chamber. A court of criminal jurisdiction in England having extensive powers. It existed from the time of Henry VIII. until that of Charles I.

"Stonewall" Jackson. Gen. Thomas J. Jackson, Confederate General.

Strasburg Cathedral. At Strasburg; Gothic; 468 feet high; has a wonderful clock.

Swedish Nightingale. Jenny Lind (now Mme. Goldschmidt).

Sorbonne, The. A university in Paris founded by Robert de Sorbonne in the thirteenth century.

Sortes Biblicæ. Fortune-telling by consulting the Bible.

South Kensington Museum. A collection of works of art and manufactures in London.

South Sea Bubble, The. A company formed in 1710 in England to pay the national debt and to have in return a monopoly of the South Sea trade. This company lasted about ten years, and its failure was the ruin of thousands.

Tabooed. Prohibited. A Polynesian word meaning consecrated; used for what is out of date or in bad taste.

Tammany Hall. A section of the Democratic party in New York City, named from their place of meeting.

Tammany Ring. Or the "Tweed Ring," or "the Ring." A set of New York City officials which absorbed large sums of the city money. Exposed in 1871.

Tammany, Saint. Patron saint of the Democratic party in New York. He was an Indian chief, whose name was really Timenund.

Tapis, On the. On the carpet; proposed for discussion. From the tapis or cloth on a council table.

Temple Bar. A stone house in London over which the heads of traitors used to be exposed. Torn down in 1878.

Termagant. A shrew. Termagant was, according to the Crusaders, the wife of Mahomet.

Terra Firma. Dry land.

Tertium Quid. A third somebody not to be named.

Theatre Francais. A theatre in Paris.

Theleme, Abbey of. A creation of Rabelais in his Gargantua. Its motto was, "Do as you please."

Thirty Years' War, The. Between the Catholics and Protestants in Germany, 1618-1648.

Thistle. The national emblem of Scotland. One night when the Danes were attempting to surprise an encampment of the Scotch, one of them trod upon a thistle; the pain caused him to raise an alarm, and the Scotch defeated them. Ever since the thistle is the insignia of Scotland.

Thor. Is the god of war, son of Odin, the Scandinavian Myth.

Threadneedle Street, The Old Lady of. The Bank of England.

Three Estates of the Realm. The nobility, the clergy and the commonalty; represented in the two houses of Parliament.

Thunderer, The. The London Times (newspaper).

Tick, On. On credit.

Tit for Tat. An equivalent; this for that.

Tom Thumb. Charles A. Stratton. Also, a fairy tale.

Tory. The name of an English political party; opposite of Whig.

Tour, The Grand. From England through France, Switzerland, Italy, Germany and home.

Tower, The. The citadel of London.

Transfiguration, The. One of Raphael's most famous pictures, now in the Vatican.

Trimmer. One who takes a moderate course in politics.

Trinity Church. An Episcopal church on Broadway at the head of Wall Street, New York. The richest church in America.

Triple Alliance, The. Alliance between Great Britain, Holland and Sweden against France, 1668.

Troubadours. Provincial poets from the eleventh to the fourteenth century.

Trouveres. Northern French poets 1100 to 1400.

Trumpet, To Sound One's Own. To boast. The entrance of knights into a list was announced by the heralds with a flourish of trumpets.

Tuft-hunter. A toady. At Oxford a nobleman was called a tuft because of the gold tuft on his college cap.

Tuileries. A French royal palace burned by the Commune in 1871.

Tulip Mania. A European craze of the seventeenth century centering in Holland. Everybody was buying tulip bulbs, which ran up to enormous prices. Many fortunes were sunk in their acquisition.

Tune the Old Cow Died of. Words instead of alms. Old song; a man having nothing with which to feed his cow, sings to her of the grass which is to grow. The expression is also used for a worn-out, tiresome tune.

Tyburn. Once a London place of execution, now a wealthy and fashionable quarter called Tyburnia.

Uffizi. A building in Florence in which is a magnificent art collection.

Ultramontanes. In France, the more extreme adherents of the Pope.

Underground Railroad, The. Organization of the different means used for the escape of runaway slaves, about the middle of the present century.

Under the Rose. (Sub rosa.) Confidentially.

Unlicked Cub. An ill-bred boy. The bear cub was believed to be licked into shape by its dam.

Unter den Linden. A street in Berlin having four rows of lime trees.

Unwashed, The Great. The mob.

Upas Tree. An object that does harm and should be avoided. The upas tree is common in Java; its gum is poisonous, and fable states that the atmosphere about it is as deadly.

Up the Spout. Or more elegantly, "gone where the woodbine twineth," or "at my uncle's," means in pawn.

Upper Ten Thousand. The aristocracy; fashionable society.

Utilitarians. Those who believe that the fitness of anything to promote happiness is the right standard of morality.

Utopia. An ideal commonwealth. The imaginary island, scene of Sir Thomas More's romance of Utopia.

Valhalla. The palace of immortality, where the heroes slain in battle dwell. (From the Saga legends.)

Vampire. An extortioner. A fabulous bat said to suck the blood of persons during sleep.

Vatican. The palace of the Popes, Rome.

Vatican, Council of the. The Œcumenical Council, 1869, promulgated Papal infallibility.

Vedas, The. Revelations of Brahma in four sacred books.

Veni, Vidi, Vici. (I came, I saw, I conquered.) Phrase used by Julius Cæsar, announcing his victory at Zela.

Venus de Medici. A Greek statue at Florence.

Venus of Milo. A Greek statue found in the Island of Melos, 1820; it is now in the Louvre.

Verbum Sap. A word to the wise.

Veronica. A relic at St. Peter's, Rome.

Versailles. A palace at Versailles, ten miles from Paris.

Vespers, The Sicilian. The massacre of the French in Sicily, March 30, 1282. The sounding of the vesper bell was the signal.

Via Dolorosa. The sorrowful way of our Lord from the Mount of Olives to Golgotha.

Vinegar Bible, The. Has "vinegar" for "vineyard", in the head line of Luke xxii. Oxford, 1767.

Virgin Queen, The. Queen Elizabeth of England.

Vitus Dance, St. A disease anciently supposed to be under control of St. Vitus.

Wabash Avenue. A street in Chicago.

Wall of China, The. A wall 1,200 miles long and 20 feet high, built as a protection against the Tartars.

Wall Street. The great financial street of New York.

Wallack's. A theatre in New York.

Walton, An Izaak. An angler.

Wandering Jew, The. A legendary personage condemned to wander over the world until the day of judgment.

War of 1812. Between Great Britain and the United States, 1812-1815.

War of the Roses. The English civil wars in the fourteenth and fifteenth centuries, between the houses of York and Lancaster.

Ward, Artemus. C. F. Browne.

Washington Street. A street in Boston, Mass.

Wassail. (What hail!) A bowl of spiced ale used on New Year's day is the Wassail bowl.

Waters, The Father of. The Mississippi.

Ways and Means. An important committee of the House of Representatives; is charged with the duty of devising ways and means for the supply of the Government expenses.

Wedding. The first anniversary of a wedding is the *paper* wedding, the gifts being paper articles; the fifth, *wooden*; the tenth, *tin*; the fifteenth, *glass*; twenty-fifth, *silver*; fiftieth, *golden*; seventy-fifth, *diamond*.

Well of St. Keyne. A well in Cornwall. The first of a married couple to taste its waters will "wear the breeches."

Westminster Abbey. A church in London where many of the illustrious dead of England are buried.

Wetherell, Elizabeth. Pseudonym of Miss Susan Warner, author of The Wide, Wide World.

Whig. The name of a political party now extinct.

Whistle. (To pay too dearly for the whistle). Dr. Franklin's story. Cost greater than benefit.

White Feather, To Show the. A display of cowardice.

White House. The Presidential mansion at Washington.

Whiteboys. A secret society in Ireland, 1789.

Wild Huntsman, The. A spectral huntsman in the Black Forest. German legend.

Windmills, To Fight with. To oppose imaginary objects. Don Quixote.

Windsor Castle. A royal residence near London.

Wise Men of the East, The. The three Magi guided by a star to Bethlehem.

Witch of Endor, The. The soothsayer who foretold the death of Saul.

Witch-Hazel. A forked twig used for finding witches; in use still for finding water.

Wooden Horse. A ruse at the siege of Troy.

Woolsack, To Sit on the. To be Lord Chancellor of England.

Wyoming Massacre. The Valley of Wyoming was ravaged by Indians in 1778.

Xanthos. The prophetic horse of Achilles.

Xantippe. The scolding wife of Socrates.

Yahoo. A ruffian. The Yahoos in Gulliver's Travels are brutes shaped like men.

Yankee. A name given to all Americans. In America itself the name is only used for natives of New England.

Yarmouth Bloater. A red herring.

Yellow Jack. The yellow fever.

Young America. The growing generation.

Young Chevalier. Charles Edward Stuart, the second pretender to the throne of Great Britain. (1720-88.)

Young Germany. Heinrich Heine and his followers.

Yosemite Valley. In California. Also a picture by Bierstadt.

Yule. Christmas.

Yule-log. A large log of wood burnt on the hearth at Christmas.

Zend-Avesta, The. Persian Scriptures written in the Zend language.

Zollverein. An association between German States for the maintenance of uniform tariff rates.

A LEXICON OF FOREIGN PHRASES

Including Sentences and Quotations from both Living and Dead Languages.

WHILE it is not considered good form to interlard one's discourse with phrases culled from foreign languages, there are many cases wherein a thought is more aptly and strikingly put in Latin or French than in English. When this is the case it is certainly permissible to use the term which puts the idea in the best shape. It is also well to have at hand a comprehensive dictionary which will show at a glance just what a word, phrase or sentence in a foreign tongue means. The pages which follow contain the most complete lexicon of the kind ever published.

A bas, F., down with.
Ab extra, L., from without.
Ab initio, L., from the beginning.
Ab intra, L., from within.
Ab normis sapiens, L., wise without teaching.
Ab origine, L., from the origin.
Ab ovo, L., from the egg.
Absente reo, L., the accused being absent.
Ab uno disce omnes, L., from one judge all.
Ab urbe condita, L., from the founding of the city.
A compte, F., on account.
A corps perdu, F., headlong.
Ad aperturam, L., at the opening.
Ad astra per aspera, L., to the stars through difficulties. (The motto of Kansas.)
Ad calendas Græcas, L., at the Greek calends; meaning never, as the Greeks had no calends.
Ad captandum vulgus, L., to catch the vulgar.
Ad eundem, L., to the same (degree).
Ad extremum, L., to the extreme.
Ad finem, L., to the end.
Ad infinitum, L., to infinity.
Ad interim, L., in the meantime.
A discretion, F., at discretion.
Ad libitum, L., at pleasure.
Ad literam, L., (even) to the letter.
Ad modum, L., after the manner of.
Ad nauseum, L., to disgust.
Ad referendum, L., for reconsideration.
Ad rem, L., to the point.
Ad unum omnes, L., every one.
Ad valorem, L., according to value.
Ad vitam aut culpam, L., for life or for fault.
Æquo animo, L., with mind content.
Ætatis suæ, L., of his (or her) age.
Affaire d'amour, F., a love affair.
Affaire d'honneur, F., a duel.
Affaire de cœur, F., an affair of the heart.
A fortiori, L., for stronger reason.
A la campagne, F., as in the country.
A la Française, F., after the French (manner).
A l'Anglaise, F., after the English (manner).
A la mode, F., after the fashion.
Alere flammam, L., to feed the flame.
Al fresco, It., in the open air.
Alis volat propriis, L., she flies with her own wings. (The motto of Oregon.)
Allez vous en, F., begone.
Allons, F., come.
Alma mater, L., benign mother.
Alter ego, L., another self.
Alter idem, L., another similar.
Amende honorable, F., an apology.
A mensa et thoro, L., from bed and board.
Amor patriæ, L., patriotism.
Amour propre, F., self-love.
Ancien regime, F., the old rule.
Anglice, L., in English.
Animis opibusque parati, L., prepared with our lives and our money. (Motto of South Carolina.)
Anno ætatis suæ, L., in the year of his (or her) age.
Anno Christi, L., in the year of Christ.
Anno Domini, L., in the year of our Lord.
Anno mundi, L., in the year of the world.
Annus mirabilis, L., the wonderful year.
Ante bellum, L., before the war.
Ante lucem, L., before the light.
Ante meridiem, L., before noon.
A l'outrance, F., to the death.
Apercu, F., sketch.
Aplomb, F., firmly; perpendicularly.
A posteriori, L., reasoning from effect to cause.
A priori, L., reasoning from cause to effect.
A propos, F., to the point; by-the-by.
Aqua vitæ, L., water of life; alcohol.
Argumentum ad hominem, L., an argument to the man.
Argumentum ad ignorantiam, L., an argument for the ignorant.
Argumentum ad baculum, L., an argument with a cudgel.
Arriere pensee, F., on after-thought.
Ars est celare artem, L., art is to conceal art.
Ars longa, vita brevis est, L., art is long, life is short.
Asinus ad lyram, L., an ass with a harp; an absurdity.
A teneris annis, L., from tender years.
Audaces fortuna juvat, L., fortune favors the bold.
Aude sapere, L., dare to be wise.
Audi alteram, L., hear the other side.
Au fait, F., expert.
Au fond, F., at the bottom.
Au pis aller, F., at the worst.
Aura popularis, L., the wind of public favor.
Aurea mediocritas, L., the golden mean.
Au reste, F., for the rest.
Au revoir, F., till the next meeting.
Aussitot dit, aussitot fait, F., no sooner said than done.
Aut amat aut odit mulier, L., a woman either loves or hates.
Aut Cæsar aut nullus, L., either Cæsar or nobody.
Auto da fe, Portuguese, an act of faith; burning a heretic.
Auto de se, L., suicide.
Au troisieme, F., on the third floor.
Aut vincere aut mori, L., either to conquer or die.
Aux armes, F., to arms.
Avant-courcur, F., a forerunner.
Avant-propos, F., a preface.
Avec permission, F., with permission.
A verbis ad verbera, L., from words to blows.
A vinculo matrimonii, L., from the bond of marriage.
A volonte, F., at pleasure.
A votre sante, F., to your health.

Bas bleu, F., a blue-stocking.
Beau ideal, F., an ideal beauty.
Beau monde, F., the fashionable world.
Beaux esprits, F., men of wit.
Beaux yeux, F., beautiful eyes.
Bel esprit, F., a brilliant mind.
Bete noir, F., a bugbear.
Bien seance, F., politeness.
Billet doux, F., a love-letter.
Bis dat qui cito dat, L., he gives twice who gives quickly.
Blase, F., surfeited.
Bon ami, F., good friend.
Bonbon, F., candy.
Bon gre mal gre, F., willing or unwilling.
Bonhomie, F., good nature.
Bonis avibus, L., with lucky omens.
Bon jour, good day.
Bonne, F., nurse.
Bonne foi, F., good faith.
Bon soir, F., good evening.
Brevi manu, L., immediately.
Brutum fulmen, L., harmless thunder.

Cacoethes loquendi, L., an itch for speaking.
Cacoethes scribendi, L., an itch for writing.
Cætera desunt, L., the remainder wanting.
Cæteris paribus, L., other things being equal.
Candida pax, L., white-robed peace.
Caput, L., head.
Caput mortuum, L., the dead body.
Carpe diem, L., be merry to-day.
Cassis tutissima virtus, L., virtue is the safest shield.
Casus belli, L., a cause for war.
Catalogue raisonne, F., a topical catalogue.
Causa sine qua non, L., an indispensable condition.
Cedant arma togæ, L., let arms yield to the gown.
Ce n'est que le premier pas qui coute, F., the first step alone is difficult.
C'est a dire, F., that is to say.
Chacun a son gout, F., every man to his taste.

Chef, F., the head; the leading person or part.
Chef de bataillon, F., a major.
Chef de cuisine, F., head cook.
Chef-d'œuvre, F., a masterpiece.
Chere amie, F., a dear friend; a mistress.
Chevalier d'industrie, F., knight of industry; one who lives by his wits.
Chiaroscuro, It., distribution of light and shade in painting.
Cicerone, It., a guide who explains curiosities.
Cicisbeo, It., a male attendant on a married lady.
Ci-devant, F., formerly; heretofore.
Cogito, ergo sum, L., I think, therefore I exist.
Colubrem in sinu fovere, L., to cherish a serpent in one's bosom.
Comme il faut, F., as it should be.
Compagnon de voyage, F., a traveling companion.
Compos mentis, L., sound of mind.
Compte rendu, F., account rendered; report.
Comte, F., count.
Comtesse, F., countess.
Con amore, F., with love or great pleasure; earnestly.
Con commodo, It., at a convenient rate.
Conditio sine qua non, L., a necessary condition.
Confrere, F., a brother of the same monastery; an associate.
Conge d'elire, F., leave to elect.
Conquiescat in pace, L., may he rest in peace.
Conseil de famille, F., a family consultation.
Conseil d'etat, F., a council of state; a privy council.
Constantia et virtute, L., by constancy and virtue.
Consuetudo pro lege servatur, L., custom is observed as law.
Contra bonos mores, L., against good morals or manners.
Coram nobis, L., before us.
Coram non judice, L., before one not the proper judge.
Corps de garde, F., a body of men who watch in a guard-room; the guard-room itself.
Corps diplomatique, F., a diplomatic body.
Corpus Christi, L., Christ's body.
Corpus delicti, L., the body, substance or foundation of the offence.
Corrigenda, L., corrections to be made.
Couleur de rose, F., rose-color; an aspect of beauty and attractiveness.
Coup d'essai, F., a first attempt.
Coup d'etat, F., a stroke of policy in state affairs.
Coup de grace, F., the finishing stroke.
Coup de main, F., a sudden attack; a bold effort.
Coup d'œil, F., a slight view; a glance.
Coup de theatre, F., a theatrical effect; claptrap.
Coute qu'il coute, F., let it cost what it may.
Credula res amor est, L., love is a credulous affair.
Crescite et multiplicamini, L., grow. or increase, and multiply. (The motto of Maryland.)
Crimen læsæ majestatis, L., the crime of high treason.
Cui bono? L., for whose benefit is it? what good will it do?
Cul de sac, F., the bottom of a bag; a place closed at one end.
Cum grano salis, L., with a grain of salt; with some allowance.
Cum privilegio, L., with privilege.
Currente calomo, L., with a running or rapid pen.
Custos retulorum, L., the keeper of the rolls.

Da capo, It., from the beginning.
D'accord, F., agreed; in tune.
Damnant quod non intelligunt, L., they condemn what they do not understand.
De bonne grace, F., with good grace; willingly.
De die in diem, L., from day to day.
De facto, L., from the fact; really.
Degage, F., easy and unconstrained.
Dei gratia, L., by the grace of God.
Dejeuner a la fourchette, F., a meat breakfast.
De jure, L., from the law; by right.
Delenda est Carthago, L., Carthage must be blotted out or destroyed.
De mortuis nil nisi bonum, L., let nothing but good be said of the dead.
De nihilo nihil fit, L., of nothing, nothing is made.
De novo, L., anew; over again from the beginning.
Deo gratias, L., thanks to God.
Deo juvante, L., with God's help.
Deo, non fortuna, L., from God, not from fortune.
Deo volente, L., God willing; by God's will; usually contracted into *D. V.*
De profundis, L., out of the depths.
Dernier ressort, F., a last resource.
De bonis non, L., of the goods not administered on.
De gustibus non est disputandum, L., there is no disputing about tastes.
Desagrement, F., something disagreeable.
Desideratum, L., a thing desired.
Desunt cætera, L., the other things are wanting; the remainder is wanting.
De trop, F., too much, or too many; not wanted.
Dies iræ, L., the day of wrath.
Dies non, L., *in law*, a day on which judges do not sit.
Dieu defend le droit, F., God defends the right.
Dieu et mon droit, F., God and my right.
Dignus vindice nodus, L., a knot worthy to be untied by such an avenger, or by such hands.
Dii penates, L., household gods.
Dii majores, L., the greater gods.
Dii minores, L., the lesser gods.
Dirigo, L., I direct or guide. (The motto of Maine.)
Disjecta membra, L., scattered limbs or remains.
Distingue, F., distinguished; eminent.
Distrait, F., absent in thought.
Divertissement, F., amusement; sport.
Divide et impera, L., divide and rule.
Dolce far niente, It., sweet doing-nothing; sweet idleness.
Double entente, F., double meaning; a play on words; a word or phrase susceptible of more than one meaning. (Incorrectly written, *double entendre.*)
Dramatis personæ, L., the characters or persons represented in a drama.
Droit des gens, F., the law of nations.
Dulce domum, L., sweet home; homewards.
Dulce est desipere in loco, L., it is pleasant to jest or be merry at the proper time.
Dulce et decorum est pro patria mori, L., it is sweet and becoming to die for one's country.
Dum spiro, spero, L., while I breathe, I hope.
Dum vivimus, vivamus, L., while we live, let us live.

Eau de Cologne, F., a perfumed liquid; Cologne water.
Eau de vie, F., water of life; brandy.
Ecce homo, L., behold the man. (Applied to a picture representing our Lord given up to the Jews by Pilate, and wearing a crown of thorns.)
Editio princeps, L., the first edition.
Egalite, F., equality.
Ego et rex meus, L., I and my king.
El dorado, Sp., the golden land.
Emigre, F., an emigrant.
Empressement, F., ardor; zeal.
En arriere, F., in the rear; behind.
En attendant, F., in the meanwhile.
En avant, F., forward.
En deshabille, F., in undress.
En echelon, F., in steps; like stairs.
En famille, F., in a domestic state.
Enfans perdus, F., lost children; *in mil.*, the forlorn hope.
En grande tenue, F., in full dress.
En masse, F., in a body.
En passant, F., in passing; by the way.
En rapport, F., in relation; in connection.
En regle, F., in order; according to rules.
En route, F., on the way.
Ense petit placidam sub libertate quietem, F., with the sword she seeks quiet peace under liberty. (The motto of Massachusetts.)
En suite, F., in company.
Entente cordiale, F., evidence of good-will towards each other, exchanged by the chief persons of two states.
Entourage, F., surroundings; adjuncts.
En tout, F., in all; wholly.
Entree, F., entrance; first course at meals; freedom of access.
Entremets, F., dainties; small dishes.
Entrepot, F., a warehouse; a place for depositing goods.
Entre nous, F., between ourselves.
Entresol, F., a suite of apartments between the basement or ground floor and the second floor.
En verite, F, in truth; verily.
E pluribus unum, L., one composed of many. (The motto of the United States, as one government formed of many independent States.)
Errare est humanum, L., to err is human.
Esprit borne, F., a narrow, contracted mind.
Esprit du corps, F., spirit of the body; fellowship; brotherhood.
Esse quam videri, L., to be, rather than to seem.
Esto perpetua, L., let it be perpetual; let it endure forever.
Et cætera, L., and the rest; etc.
Et hoc genus omne, L., and everything of the kind.
Et sequentes, L., *Et sequentia*, L., and those that follow.
Et sic de cæteris, L., and so of the rest.
Et tu, Brutel L., and thou also, Brutus!
Eureka, Gr., I have found it. (The motto of California.)
Ex adverso, L., from the opposite side.
Ex animo, L., with the soul; heartily.
Ex capite, L., from the head; from memory.
Ex cathedra, L., from the bench, chair or pulpit; with high authority.
Excelsior, L., higher; more elevated. (The motto of New York.)
Exceptio probate regulam, L., the exception proves the rule.
Excerpta, L., extracts.
Ex concessio, L., from what is conceded.
Ex curia, L., out of court.
Ex dono, L., by the gift.
Exempli gratia, L., for example; for instance.
Exeunt, L., they go out.
Exeunt omnes, L., all go out.
Exit, L., departure; a passage out; death.
Exitus acta probat, L., the event justifies the deed. (Washington's motto.)
Ex necessitate rei, L., from the necessity of the case.
Ex nihilo nihil fit, L., out of nothing, nothing comes.
Ex officio, L., by virtue of office.
Ex parte, L., on one part or side only.
Ex pede Herculum, L., we see a Hercules from the foot; we judge the whole from the specimen.
Experimentum crucis, L., the experiment of the cross; a decisive experiment; a most searching test.
Experto crede, L., trust one who has had experience.
Ex post facto, L., after the deed is done.
Ex tempore, L., off-hand; without premeditation.
Extra muros, L., beyond the walls.
Ex uno disce omnes, L., from one learn all; from one you can judge the whole.
Ex usu, L., from or by use.

Facetiæ, L., witticisms; humorous pleasantry.
Facile princeps, L., evidently pre-eminent; the admitted chief.
Facilis est descensus Averni, L., the descent to hell is easy; the road to evil is easy.
Fac-simile, L., an exact copy; a likeness.
Fait accompli, F., a thing already accomplished.
Fas est et ab hoste doceri, L., it is well to learn even from an enemy.

Fata Morgana, It., a meteoric phenomenon nearly allied to the mirage.
Fata obstant, L., the Fates oppose it.
auteuil, F., an easy chair.
ux pas, F., a false step; a mistake.
ecit, L., he made it; put after an artist's name.
Felicitas multos habet amicos, L., prosperity has many friends.
Feliciter, L., happily; successfully.
Felo de se, L., a self-murderer; one who commits felony by suicide.
Femme couverte, F., a woman covered or sheltered; a married woman.
Femme de chambre, F., a woman of the chamber; a chamber-maid.
Femme sole, F., a single woman; an unmarried woman.
Feræ naturæ, L., of a wild nature—said of wild beasts.
Festina lente, L., hasten slowly.
Fete champetre, F., a rural festival.
Fete Dieu, F., the Corpus Christi festival of the Roman Catholic Church.
Feu de joie, F., a bonfire; a discharge of fire-arms on joyful occasions.
Fiat justitia, ruat cælum, L., let justice be done, though the heavens should fall.
Fidei defensor, L., defender of the faith.
Fides Punica, L., Punic faith; treachery.
Fidus Achates, L., faithful Achates; a true friend.
Fille de chambre, F., a girl of the chamber; a chamber-maid.
Finem respice, L., look to the end.
Fit fabricando faber, L., a workman is made by working; practice makes perfect.
Flagrante delicto, L., in the commission of crime.
Fortiter in re, L., with firmness in acting.
Fortuna favet fortibus, F., fortune favors the brave.
Fronti nulla fides, L., no faith in appearance; there is no trusting to appearances.
Fuit Ilium, L., Troy has been.
Fulmen brutum, L., a harmless thunderbolt.
Functus officio, L., having discharged his office.
Furor loquendi, L., a rage for speaking.
Furor poeticus, L., poetic fire.
Furor scribendi, L., a rage for writing.

Garde du corps, F., a body-guard.
Garde mobile, F., a guard liable for general service.
Gardez bien, F., guard well; take care.
Genius loci, L., genius of the place.
Gens d'armes, F., armed police.
Gens de lettres, F., literary people.
Gens de meme famille, F., birds of a feather.
Gentilhomme, F., a gentleman.
Germanice, L., in German.
Gloria in excelsis, L., glory to God in the highest.
Gloria Patri, L., glory to the Father.
Gradus ad Parnassum, L., a step to Parnassus, a mountain sacred to Apollo and the Muses; a book containing aids in writing Greek or Latin poetry.
Grande parure, F., full-dress.
Gratis dictum, L., mere assertion.
Guerre a l'outrance, L., war to the uttermost.

Haud passibus æquis, L., not with equal steps.
Haut gout, F., fine or elegant taste; high flavor or relish.
Hic et ubique, L., here and everywhere.
Hic jacet, L., here lies.
Hic labor, hoc opus est, L., this is labor, this is work.
Hic sepultus, L., here buried.
Hinc illæ lacrimæ, L., hence proceed these tears.
Historiette, F., a little or short history; a tale.
Hoi polloi, Gr., the many; the rabble.
Hombre de un libro, Sp., a man of one book.
Homme d'esprit, L., a man of talent; a witty man.
Honi soit qui mal y pense, F., evil be to him who evil thinks.
Honorarium, L., a fee paid to a professional man.
Horribile dictu, L., terrible to be said.
Hors de combat, F., out of condition to fight.
Hortus siccus, L., collection of dried plants.
Hotel de ville, F., a town hall.
Hotel des Invalides, L., the military hospital in Paris.
Humanum est errare, L., to err is human.

Ich dien, Ger., I serve.
Id est, L., that is—abbreviated to *i.e.*
Imitatores servum pecus, L., imitators; a servile herd.
Imperium in imperio, L., a government within a government.
In æternum, L., forever.
In armis, L., under arms.
In articulo mortis, L., at the point of death.
Index expurgatorius, L., a list of prohibited books.
In esse, L., in being.
In extenso, L., at full length.
In extremis, L., at the point of death.
In flagrante delictu, L., taken in the act.
In forma pauperis, L., in the form of a poor person.
In foro conscientiæ, L., before the tribunal of conscience.
Infra dignitatem, L., below one's dignity.
In hoc signo vinces, L., under this sign, or standard, thou shalt conquer.
In hoc statu, L., in this state or condition.
In limine, L., at the threshold.
In loco, L., in the place.
In loco parentis, L., in the place of a parent.
In medias res, in the midst of things.
In memoriam, L., to the memory of; in memory.
In nomine, L., in the name of.
In nubibus, L., in the clouds.
In pace, L., in peace.
In perpetuum, L., forever.
In petto, L., within the breast; in reserve.
In pleno, L., in full.
In posse, L., in possible existence; that may be possible.
In præsenti, L., at the present time.
In propria persona, L., in one's own person.
In puris naturalibus, L., in naked nature; quite naked.
In re, L., in the matter of.
In rem, L., against the thing or property.
In rerum natura, L., in the nature of things.
In situ, L., in its original situation.
Insouciance, F., indifference; carelessness.
In statu quo, L., in the former state.
Inter alia, L., among other things.
Inter nos, L., between ourselves.
Inter pocula, L., between drinks.
In terrorem, L., as a warning.
Inter se, L., among themselves.
In totidem verbis, L., in so many words.
In toto, L., in the whole; entirely.
Intra muros, L., within the walls.
In transitu, L., on the passage; during the conveyance.
In vacuo, L., in empty space; free, or nearly free, from air.
In vino veritas, L., there is truth in wine.
Invita Minervæ, L., against the will of Minerva.
Ipse dixit, L., he himself said it; dogmatism.
Ipsissima verba, L., the very words.
Ipsissimis verbis, L., in the very words.
Ipso facto, L., in the fact itself.
Ira furor brevis est, L., anger is a short madness.

Jacta est alea, L., the die is cast.
Je ne sais quoi, F., I know not what.
Jet d'eau, F., a jet of water.
Jeu de mots, F., a play on words; a pun.
Jeu d'esprit, F., a play of spirit; a witticism.
Jubilate Deo, L., be joyful in the Lord.
Judicium Dei, L., the judgment of God.
Jupiter tonans, L., Jupiter the thunderer.
Jure divino, L., by divine law.
Jure humano, L., by human law.
Jus canonicum, L., canon law.
Jus civile, L., civil law.
Jus divinum, L., divine law.
Jus gentium, L., the law of nations.
Justemilieu, F., the golden mean.
Labore et honore, L., by labor and honor.
Labor ipse voluptas, L., labor itself is a pleasure.
Labor omnia vincit, L., labor conquers everything.
La fame non vuol leggi, It., hunger obeys no laws.
Laissez faire, F., let alone; suffer to have its own way.
Lapsus calami, L., a slip of the pen.
Lapsus linguæ, L., a slip of the tongue.
Lapsus memoriæ, L., a slip of the memory.
Lares et penates, L., domestic and household gods.
Latet anguis in herba, L., a snake lies hid in the grass.
Laudari a viro laudato, L., to be praised by a man who is himself praised.
L'avenir, F., the future.
Laus Deo, L., praise to God.
Le beau monde, F., the fashionable world.
Le bon temps viendra, F., the good time will come.
Le grand monarque, F., the great monarch—applied to Louis XIV. of France.
Le pas, F., precedence in place or rank.
Le roi le veut, F., the king wills it.
Lese-majeste, L., high treason.
L'etoile du nord, F., the star of the north—the motto of Minnesota.
Le tout ensemble, F., all together.
Lettre de cachet, F., a sealed letter; a royal warrant.
Lettre de marque, F., a letter of marque or reprisal.
Lex non scripta, L., the unwritten law.
Lex scripta, L., the written law; the statute law.
Lex talionis, L., the law of retaliation.
Liberum arbitrium, L., free will.
Limæ labor, L., the labor of the file; the slow polishing of a literary composition.
Lis sub judice, L., a case not yet decided.
Lite pendente, L., the law-suit hanging; during the trial.
Litera scripta manet, L., the written letter remains.
Loci communes, L., common places.
Locos y ninos dizen la verdad, Sp., children and fools speak the truth.
Locum tenens, L., one holding the place; a deputy or substitute.
Locus standi, L., a place for standing; a right to interfere.
Locus penitentiæ, L., place for repentance.
Lusus naturæ, L., a sport or freak of nature.

Ma chere, F., my dear—fem.
Ma foi, F., upon my faith.
Magna est veritas et prevalebit, L., truth is great and it will prevail.
Magnum bonum, L., a great good.
Magnum opus, L., a great work.
Maintien, F., deportment; carriage.
Maison de sante, F., a private hospital.
Maitre d'hotel, F., a house-steward.
Malade du pays, F., home-sickness.
Mala fide, L., with bad faith; treacherously.
Mal a propos, F., ill-timed.
Male parta male dilabuntur, L., things ill gotten are ill spent.
Malgre nous, F., in spite of us.
Manibus pedibusque, L., with hands and feet.
Malum in se, L., bad in itself.
Manu propria, L., with one's own hand.
Mardi Gras, F., Shrove Tuesday.
Materfamilias, L., the mother of a family.
Mauvaise honte, F., false shame.
Mauvais sujet, F., a bad subject; a worthless fellow.
Maximus in minimis, L., very great in trifling things.
Medio tutissimus ibis, L., you will go most safely in a middle course.
Mega biblion, mega kakon, Gr., a great book is a great evil.
Me judice, L., I being judge; in my opinion.
Memento mori, L., remember death.
Mens sana in corpore sano, L., a sound mind in a sound body.
Mens sibi conscia recti, L., a mind conscious of rectitude.

Mens agitat molem, L., mind moves matter.
Menu, F., a bill of fare.
Mesalliance, F., improper association; marriage with one of lower station.
Meum et tuum, L., mine and thine.
Mirabile dictu, L., wonderful to be told.
Mirabile visu, L., wonderful to be seen.
Mise en scene, F., the getting up for the stage, or the putting in preparation for it.
Modus operandi, L., the manner of operation.
Mollia tempora fandi, L., times favorable for speaking.
Mon ami, F., my friend.
Mon cher, F., my dear—masc.
Montani semper liberi, L., mountaineers are always freemen—the motto of West Virginia.
More majorum, L., after the manner of our ancestors.
More suo, L., in his own way.
Motu proprio, L., of his own accord.
Multum in parvo, L., much in little.
Mundus vult decipi, L., the world wishes to be deceived.
Mutatis mutandis, L., the necessary changes being made.

Natale solum, L., natal soil.
Necessitas non habet legem, L., necessity has no law.
Nee, F., born, family or maiden name.
Ne exeat, L., let him not depart.
Ne fronti crede, L., trust not to appearance.
Nemine contradicente, L., without opposition.
Nemine dissentiente, L., no one dissenting; without opposition.
Nemo me impune lacessit, L., no one provokes me with impunity—the motto of Scotland.
Nemo mortalium omnibus horis sapit, L., no one is wise at all times.
Nemo repente fuit turpissimus, L., no man becomes a scoundrel at once.
Ne plus ultra, L., nothing further.
Ne quid detrimenti respublica capiat, L., lest the republic should receive harm.
Ne sutor ultra crepidam, L., let the shoemaker stick to his last.
Nil admirari, L., to wonder at nothing.
Nil desperandum, L., never despair.
N'importe, F., never mind.
Nisi dominus, frustra, L., unless the Lord helps, nothing is gained.
Nisi prius, L., unless previously.
Nitor in adversum, L., I strive against opposition.
Noblesse oblige, F., nobility obliges; nobles must act nobly.
Nolens volens, L., willy-nilly.
Noli me tangere, L., don't touch me; hands off.
Nolle prosequi, L., to abandon prosecution.
Nolo episcopari, L., I am unwilling to be a Bishop.
Nom de guerre, F., a war name; an assumed name.
Nom de plume, F., a pen-name; name assumed by an author.
Non compos mentis, L., not in one's right mind
Non constat, L., it does not appear.
Non est inventus, L., he has not been found.
Non multa, sed multum, L., not many things, but much.
Non nobis solum, L., not for ourselves alone.
Non mi ricordo, It., I do not remember.
Noscitur a sociis, L., he is known by his companions.
Nota bene, L., markwell.
Nous avons changé tout cela, F., we have changed all that.
Nous verrons, F., we shall see.
Nunquam non paratus, L., never unprepared.

Oderint dum metuant, L., let them hate, provided they fear.
Odi profanum, L., I hate the vulgar.
Odium theologicum, L., theological hatred.
Olla podrida, Sp., a mixture.
Omne ignotum pro magnifico, L., everything unknown is thought magnificent.
Omnia vincit amor, L., love conquers all things.
On dit, F., they say; people say.
Onus probandi, L., the burden of proof.
Ora pro nobis, L., pray for us.
O tempora! O mores! L., oh, the times! oh, the manners.
Otium cum dignitate, L., ease with dignity.
Outre, F., extravagant; extreme.

Palmam qui meruit ferat, L., who merits bears the prize.
Par excellence, F., by way of eminence; in the highest degree.
Par hasard, F., by chance.
Pari passu, L., with equal step.
Parvenu, F., an upstart; a rich "snob."
Pater familias, L., the father of a family.
Pater patriæ, L., the father of his country.
Pax vobiscum, L., peace be with you.
Peccavi, L., I have sinned.
Pendente lite, L., while the suit is pending.
Per annum, L., by the year.
Per capita, L., by the head; on each person.
Per contra, L., on the other hand.
Per diem, L., by the day; every day.
Periculum in mora, L., danger in delay.
Per se, L. by itself.
Personnel, F., the staff; persons in any service.
Petitio principii, L., begging the question.
Petite, F., small; little-fem.
Piece de resistance, F., a joint of meat.
Pinxit, L., he (or she) painted it.
Pis aller, F., a last expedient.
Plebs, L., the common people.
Poeta nascitur, non fit, L., a poet is born, not made.
Point d'appui, F., point of support.
Populus vult decipi, L., the populace wish to be deceived.
Posse comitatus, L., the power of the country; the force that may be summoned by the sheriff.
Poste restante, F., to be left till called for.
Post meridiem, L., afternoon.
Post mortem, L., after death.
Post obitum, L., after death.
Pour parler, F., a consultation.
Pour prendre conge, F., to take leave.
Precieuse, F., a blue stocking; a conceited woman.
Preux chevalier, F., a gallant gentleman.
Prima donna, It., the first lady; the principal female singer in Italian opera.
Prima facie, L., on the first face; at first sight.
Primus inter pares, L., first among his peers.
Pro bono publico, L., for the public good.
Proces verbal, F., verbal process; the taking of testimony in writing.
Pro et con, L., for and against.
Pro forma, L., for the sake of form.
Pro patria, L., for one's country.
Pro tempore, L., for the time.
Punica fides, L., Punic faith, *i.e.*, treachery.

Quantum sufficit, L., as much as is sufficient.
Quelque chose, F., something.
Quid nunc, L., what now; a gossip.
Quid pro quo, L., an equivalent.
Qui vive, F., who goes there?
Quod erat demonstrandum, L., which was to be demonstrated.
Quondam, L., at one time; once.

Rara avis, L., a rare bird.
Rechauffe, F., warmed over; stale.
Recherche, F., choice; elegant.
Redacteur, F., an editor.
Redivivus, L., restored to life.
Reductio ad absurdum, L., reduction to an absurdity.
Rentes, F., public funds; national securities.
Requiescat in pace, L., may he (or she) rest in peace.
Res angusta domi, L., the narrow things at home; poverty.
Res gestæ, L., things done.
Resurgam, L., I shall rise again.
Revenons a nos moutons, F., let us return to our sheep; come back to the subject.
Robe de chambre, F., a dressing-gown.
Roue, F., a rake.
Rouge et noir, F., red and black; a game.

Sanctum sanctorum, L., the holy of holies.
Sang froid, F., cold blood; self-possession.
Sans culottes, F., without breeches; red republicans.
Sartor resartus, L., the tailor patched.
Sauve qui peut, F., save himself who can.
Savoir faire, F., knowing how to do things.
Savoir vivre, F., knowledge of the world.
Semper idem, L., always the same.
Semper paratus, L., always prepared.
Sequitur, L., it follows.
Seriatim, L., in order.
Sic itur ad astra, L., thus the road to immortality.
Sic semper tyrannis, L., thus always with tyrants.
Sic transit gloria mundi, L., so passes the glory of the world.
Sic volo, sic jubeo, L., thus I will; thus I command.
Similia similibus curantur, L., like things are cured by like.
Similis simili gaudet, L., like is pleased with like.
Si monumentum quæris, circumspice, L., if you seek his monument, look around.
Sine die, L., without a day appointed.
Sine qua non, L., an indispensable condition.
Siste, viator, L., stop, traveler.
Si vis pacem, para bellum, L., if you wish peace, prepare for war.
Soi-disant, F., self-styled.
Spero meliora, L., I hope for better things.
Spirituel, L., intellectual; witty.
Spolia opima, L., *in ancient Rome*, the spoils of a vanquished general taken by the victorious general; a rich booty.
Sponte sua, L., of one's own accord.
Statu quo ante bellum, L., in the state which was before the war.
Status quo, L., the state in which.
Stet, L., let it stand.
Suaviter in modo, fortiter in re, L., gentle in manners, brave in deed.
Sub judice, L., under consideration.
Sub pœna, L., under a penalty.
Sub rosa, L., privately.
Sub silentio, L., in silence or stillness.
Sui generis, L., of its own kind.
Summum bonum, L., the chief good.
Summum jus, summa injuria, L., the rigor of the law is the height of oppression.
Surgit amari aliquid, L., something bitter arises.
Suum cuique, L., let each have his own.

Tableau vivant, F., the representation of some scene by groups of persons.
Tabula rasa, L., a smooth or blank tablet.
Tædium vitæ, L., weariness of life.
Tant pis, F., so much the worse.
Te Deum, L., a hymn of thanksgiving.
Tempora mutantur, et nos mutamur in illis, L., the times are changed and we are changed with them.
Tempus fugit, L., time flies.
Terminus ad quem, L., the time to which.
Terminus a quo, L., the time from which.
Terra firma, L., solid earth.
Terra incognita, L., an unknown country.
Tertium quid, L., a third something.
Tete-a-tete, F., head to head; a private conversation.
Toga virilis, L., the gown of manhood.
To kalon, Gr., the beautiful; the chief good.
Totidem verbis, L., in just so many words.
Toties quoties, L., as many as.
Toto cælo, L., by the whole heavens; diametrically opposite.
Toujours pret, F., always ready.
Tour de force, F., a feat of strength or skill.
Tout-a-fait, F., entirely; wholly.
Tout ensemble, F., the whole taken together.
Troja fuit, L., Troy was.
Trottoir, F., a sidewalk.
Tu quoque, Brute! L., and thou, too, Brutus!
Tutor et ultor, L., protector and avenger.
Tuum est, L., it is your own.

Ubi mel, ibi apes, L., where honey is, there are bees.
Ultima ratio regum, L., the last argument of kings; war.

Ultima Thule, L., the utmost boundary or limit.
Un bien fait n'est jamais perdu, F., a kindness is never lost.
Un fait accompli, L., an accomplished fact.
Unguibus et rostro, L., with claws and beak.
Usque ad nauseam, L., to disgust.
Usus loquendi, L., usage in speaking.
Utile dulci, L., the useful with the pleasant.
Ut infra, L., as below.
Uti possidetis, L., as you possess; state of present possession.
Ut supra, L., as above stated.

Vade mecum, L., go with me.
Vale, L., farewell.
Valet de chambre, F., an attendant; a footman.
Variæ lectiones, L., various readings.
Variorum notæ, L., the notes of various authors.
Veni, vidi, vici, L., I came, I saw, I conquered.
Vera pro gratiis, L., truth before favor.
Verbatim et literatim, L., word for word and letter for letter.
Verbum sat sapienti, L., a word is enough for a wise man.
Veritas prevalebit, L., the truth will prevail.
Veritas vincit, L., truth conquers.
Vestigia, L., tracks; vestiges.
Vestigia nulla retrorsum, L., no footsteps backward.
Vexata quæstio, L., a disputed question.
Vice, L., in the place of.
Vice versa, L., the terms being exchanged.
Videlicet, L., to wit; namely.
Vide ut supra, L., see what is stated above.
Vi et armis, L., by force and by arms; by main force.
Vincit qui se vincit, L., he conquers who overcomes himself.
Vinculum matrimonii, L., the bond of marriage.
Virtus laudatur, et alget, L., virtue is praised, and is not cherished (is starved).
Virtus semper viridis, virtue is ever green and blooming.
Vis inertiæ, L., the power of inertia; resistance.
Vivat regina! L., long live the queen!
Vivat rex, L., long live the king.
Viva voce, L., by the living voice; by oral testimony.
Vivat respublica! L., long live the republic!
Vive la republique! F., long live the republic!
Vive l'empereur! F., long live the emperor!
Vive le roi! F., long live the king!
Voila, F., behold; there is or there are.
Volens et potens, L., able and willing; motto of Nevada.
Volente Deo, L., God willing.
Volenti non fit injuria, L., no injustice is done to the consenting person.
Vox et prætera nihil, L., a voice and nothing more; sound without sense.
Vox populi, vox Dei, L., the voice of the people is the voice of God.
Vulgo, L., commonly.
Vultus est index animi, L., the face is the index of the mind.

THE LANGUAGE OF GEMS.

AMETHYST, ... PEACE OF MIND.
Regarded by the ancients as having the power to dispel drunkenness.

BLOOD-STONE, ... I MOURN YOUR ABSENCE.
Worn by the ancients as an amulet or charm, on account of the medicinal and magical virtues it was supposed to possess.

DIAMOND, ... PRIDE.
Awarded supernatural qualities from the most remote period down to the Middle Ages. Has the power of making men courageous and magnanimous. Protects from evil spirits. Influences the gods to take pity upon mortals. Maintains concord between husband and wife, and for this reason was held as the most appropriate stone for the espousal ring.

EMERALD, ... SUCCESS IN LOVE.
Mentioned in the Bible as worn in the breast-plate of the High Priest as an emblem of chastity.

RUBY, ... A CHEERFUL MIND.
An amulet against poison, sadness, evil thoughts. A preservative of health. Admonishes the wearer of impending danger by changing color.

SAPPHIRE, ... CHASTITY.
Procures favor with princes. Frees from enchantment. Prevents impure thoughts.

TOPAZ, ... FIDELITY.
Calms the passions.

TURQUOISE. . . . . . SUCCESS AND HAPPINESS.
Preserves from contagion.

GARNET, ... FIDELITY IN EVERY ENGAGEMENT.

ONYX, ... RECIPROCAL LOVE.

OPAL, ... PURE THOUGHTS.

PEARL, ... PURITY AND INNOCENCE.

DICTIONARY OF ABBREVIATIONS.

DAILY is the use of abbreviations increasing in America. The demand for continual short-cuts in writing as well as in everything else has built a great number of logogriphs, which without a comprehensive glossary must be often unintelligible. Below will be found all the abbreviations in good English usage.

a. In commerce, *to*.
@. In commerce, *at*.
A.A.G. Assistant Adjutant-General.
A.A.P.S American Association for the Promotion of Science.
A.A.S. *Academiæ Americanæ Socius*, Fellow of the American Academy (of Arts and Sciences).
A.A.S.S. *Americanæ Antiquarianæ Societatis Socius*, Member of the American Antiquarian Society.
A.B. *Artium Baccalaureus*, Bachelor of Arts.
A.B.C.F.M. American Board of Comissioners for Foreign Missions.
Abp. Archbishop.
Abr. Abridgment.
Abbr. Abbreviation.
A.B.S. American Bible Society.
A.C. *Ante Christum*, before Christ; Arch-Chancellor.
Acad. Academy.
Acct. Account; Accent.
A.C.S. American Colonization Society.
A.D. *Anno Domini*, in the year of our Lord.
A.D.C. Aide-de-camp.
Ad. Advertisement.
Adj. Adjective.
Adjt. Adjutant.
Adjt.-Gen. Adjutant-General.
Ad lib. *Ad libitum*, at pleasure.
Adm. Admiral; Admiralty.
Adm. Ct. Admiralty Court.
Admr. Administrator.
Admx. Administratrix.
Ad v. *Ad valorem*, at (or on) the value.
Adv. Adverb; Advent; Advertisement.
Æt. *Ætatis*, of age; aged.
A.F.&A.M. Ancient Free and Accepted Masons.
A.F.B.S. American and Foreign Bible Society.
A.G. Adjutant-General.
Agr. Agriculture.
A.G.S.S. American Geographical and Statistical Society.
Agt. Agent.
A.H. *Anno Hegiræ*, in the year of the Hegira.
A.H.M.S. American Home Missionary Society.
Ala. Alabama.
Ald. Alderman.
A.L. of H. American Legion of Honor.
Alex. Alexander.
Alg. Algebra.
Alt. Altitude.
A.M. *Anno mundi*, In the year of the world; *Artium Magister*, Master of Arts; *Ante meridiem*, Before noon, morning.
Amb. Ambassador. (See Emb.)
Amer. American.
AMM. *Amalgama*, Amalgamation.
Amt. Amount.
An. *Anno*, In the year.
An.A.C. *Anno ante Christum*, in the year before Christ.
Anat. Anatomy.
Anc. Ancient; anciently.
And. Andrew.
Ang. Sax. Anglo-Saxon.
Anon. Anonymous.
Ans. Answer.
Ant. Antiquity.
Anth. Anthony.
Aor. or aor. Aorist.
A.O.S.S. *Americanæ Orientalis Societatis Socius*, Member of the American Oriental Society.
A.O.U.W. Ancient Order of United Workmen.
Ap. Apostle; Applus.
Ap. *Apud*, in the writings of; as quoted by.
Apo. Apogee.
Apoc. Apocalypse.
App. Appendix.
Apr. April.
A.Q.M.G. Assistant Quartermaster-General
A.R. *Anna Regina*, Queen Anne. *Anno regni*, year of the reign.
A.R.A. Associate of the Royal Academy.
Arab. Arabic, or Arabia.
Ariz. Ter. Arizon Territory.
Arg. *Argumento*, by an argument drawn from such a law.
Arith. Arithmetic.
Ark. Arkansas.
A.R.R. In the year of the reign of the king.
A.R.S.S. Fellow of the Royal Society of Antiquaries.
Art. Article.
A.S. or Assist. Sec. Assistant Secretary.
A.S.A. American Statistical Association.
Asst. Assistant.
Asst. Surg. Assistant Surgeon.
A.S.S.U. American Sunday-School Union.
Astrol. Astrology.
Astron. Astronomy.
A.T. Arch-Treasurer.
A.T.S. American Tract Society.
Ats. At suit of.
Atty. Attorney.
Atty.-Gen. Attorney-General.
A.U.A. American Unitarian Association.
Aub. Theol. Sem. Auburn Theological Seminary.
A.U.C. In the year of Rome.
Aug. August.
Aur. Gold, *Aurum*.
Auth. Ver. Authorized version (of the Bible).
Av. Average; Avenue.
Avoir. Avoirdupois.
A.Y.M. Ancient York Masons.
b. Born.
B.A. Bachelor of Arts.
B.A. British America.
Bal. Balance.
Balt. Baltimore.
Bar. Barrel; Barleycorn.
Bart. or Bt. Baronet.
Bbl. Barrel.
B.C. Before Christ.
B.C. Bachelor of the Classics.
B.C.L. Bachelor of Civil Law.
B.D. Bachelor of Divinity.
Bd. Bound.
Bds. or bds. Boards (binding).
B.E. Bachelor of the Elements.
Benj. Benjamin.
Bk. Book.
B. Lit. Bachelor of Letters.
B.LL. Bachelor of Laws.
Bl., Bls. Barrel, Barrels.
B.M. Bachelor of Medicine.
B. Mus. Bachelor of Music.
Bor. Borough.
Bost. Boston.
Bot. Botany.
Bp. Bishop.
B.R. The King's or Queen's Bench.
Brig. Brigade; Brigadier.
Brig.-Gen. Brigadier-General.
Brit. British; Britain.
Brit. Mus. British Museum.
Bro., Bros. Brother, Brothers.
Br. Univ. Brown University.
Brus. Brussels.
B.S. Bachelor of Science.
Bu., Bush. Bushel.
B.V. Blessed Virgin.
B.V. Farewell.
B.V.M. Blessed Virgin Mary.
C., Ch. or Chap. Chapter; Consul.
C. or Cent. A hundred, *Centum*.
C.A. Commercial Agent.
cæt. par. Other things being equal. *Cæteris paribus*.
Cad. Eng. Cadet Engineer.
Cal. California; Calends; Calendar.
Cam. Cambridge.
Can. Canon; Canada.
Cant. Canticles.
Cap, or c. Chapter, *Caput, capitulum*.
Caps. Capitals.
Capt. Captain.
Capt.-Gen. Captain-General.
Card. Cardinal.
C.A.S Fellow of Connecticut Academy, *Conn. Academiæ Socius*.
Cash. Cashier.
ca. resp., ca. sa. A legal writ.
Cath. Catholic.
Cath. Inst. Catholic Institute.
C.B. Companion of the Bath.
C.B Common Bench.
C.C. County Clerk; County Commissioner.
C.C. Caius College; Account Current.
C.C. Chancellor Commander; Consular Clerk.
C.C.C. Corpus Christi College.
C.C.P. Court of Common Pleas.
C.E. Civil Engineer; Canada East.
Cel. or Celt. Celtic.
Cen. Century; Centennial.
Cf., or cf. Compare, *Confer*.
C.G. Commissary-General; Consul-General.
C.G.S. Commissary-General of Subsistence.
C.H. Court-house.
Ch. Church; Chapter; Charles; Chaldron.
Chamb. Chamberlain.
Chanc. Chancellor.
Chap. Chapter; Chaplain.
Chas. Charles.
Chem. Chemistry.
Chf. E. Chief Engineer.
Chf. Con. Chief of Construction.
Chf. Med. Pur. Chief Medical Purveyor.
Chf. Ord. Chief of Ordance.
Chr. Christopher.
Chron. Chronicles.
Cin. Cincinnati.
C.J. Chief Justice.
Cl. Clergyman.
Cld. Cleared.
Clk. Clerk.
C.M. Vincentians or Lazarists.
C.M. Master in Surgery.
C.M. Common Meter.
C.M.G. Companion of the Order of St. Michael and St. George.
Co. Company; County.
Coad. Coadjutor.
Coad. Bp. Coadjutor Bishop.
Coad. cum jure suc. Coadjutor with right of succession.
C.O.D. Cash (or collect) on delivery.
Col. Colonel; Colossians; Colorado.
Coll. Collector; Colloquial; College; Collection.
Colo. Colorado.

Com. Commerce; Committee; Commeatary; Commissioner; Commodore; Community.
Com. Arr. Committee of Arrangements.
Comdg. Commanding.
Comdt. Commandant.
Comm. Commentary.
Commo. Commodore.
Comp. Compare; Compound.
Com. Ver. Common Version (of the Bible).
Con. Against; In opposition, *Contra.*
Con. Cr. Contra, Credit.
Con. Convent.
Conch. Conchology.
Cong. Congress; Congregation; Congregationalist.
Conj. or conj. Conjunction.
Conn. or Ct. Connecticut.
Const. Constable; Constitution.
Cont. Contra.
Conv. Convent.
Cor. Corinthians; Corner.
Corol. Corollary.
Cor Sec. Corresponding Secretary
C.P. Common Pleas.
C.P. Court of Probate.
C.P.S. Keeper of the Privy Seal.
C.R. Keeper of the Rolls.
Cr. Creditor; Credit.
Crim. Con. Criminal conversation, or Adultery.
C.S. Court of Sessions; Commissary of Subsistence.
C.S. Keeper of the Seal.
C.S.O. Chief Signal Officer.
Ct., cts. Cent, Cents; Connecticut.
C. Theod. In the Theodosian Code.
C.W. Canada West.
Cwt. Hundredweight.
Cyc. Cyclopedia.
d. Penny or Pence.
d. Died; Day.
D. Five hundred.
Dak. Ter. Dakota Territory.
Dan. Daniel; Danish.
D.C. Again; Deputy Consul.
D.C. District of Columbia.
D.C.L. Doctor of Civil Law.
D.D. Doctor of Divinity.
D.D.S. Doctor of Dental Surgery.
D.E. Dynamic Engineer.
Dea. Deacon.
Dec. December; Declaration.
Deft. or Dft. Defendant.
Deg. Degree or degrees.
Del. Delaware; Delegate.
Del. or del. He drew it.
Dep. Deputy.
Dep. Q.M.G. Deputy Quartermaster-General.
Dept. Department.
Deut. Deuteronomy.
D.F. Dean of the Faculty.
D.G. By God's grace.
D.G. Thanks to God.
Diam. Diameter.
Dict. Dictator; Dictionary.
Dim. Diminutive.
Dioc. Diocese.
Dioc. Sem. Diocesan Seminary.
Disc. Discount.
Diss. Dissertation.
Dist. District.
Dist.-Atty. District-Attorney.
Div. Dividend.
D.M. Doctor of Music.
D.M.D. Doctor Dental Medicine.
Do. The Same, *Ditto.*
Dol., Dols., $. Dollars.
Dom. To God, the best, the greatest.
Dom. Prel. Domestic Prelate.
Doz. Dozen.
D.P. Doctor of Philosophy.
Dr. Debtor; Doctor.
D.S. From the sign.
D.T. Doctor of Theology.
D.V. God willing, *Deo volente.*
Dub. Dublin.
Dwt. Pennyweight.
E. East.
ea. Each.
E. by S. East by South.
Eben. Ebenezer.
Eccl. Ecclesiastes.
Ecclus. Ecclesiasticus.
Ed. Editor; Edition.
Edin. Edinburgh.
Edit. Edition.
Edm. Edmund.
Edw. Edward.
E.E. Errors excepted.
E.E. & M.P. Envoy Extraordinary and Minister Plenipotentiary.
e.g. For example, *Exempli gratia.*
e.g. From the flock, among the rest.
E.I. East Indies or East India.
Eliz. Elizabeth.
E. lon. East longitude.
Emp. Emperor; Empress.
Encyc. Encyclopedia.
E.N.E. East-northeast.
Eng. England; English.
Eng. in Chf. Engineer in Chief.
Ens. Ensign.
Ent. Entomology.
Env. Ext. Envoy Extraordinary.
Ep. Epistle.
Eph. Ephesians; Ephraim.
Epis. Episcopal.
Esd. Esdras.
E.S.E. East-Southeast.
Esq., Esqs. Esquire, Esquires.
Esth. Esther.
et al. And others, *Et alii*
etc. or &c. And other things; And so forth.
et. seq. And what follows, *Et sequentia.*
Evang. Evangelical; Evangelist.
Ex. Example.
Ex. Exodus.
Exc. Excellency; Exception.
Exch. Exchequer.
Exec. Com. Executive Committee.
Execx. Executrix.
ex. g. For example, *Exempli gratia.*
Exr. or Exec. Executor.
Ez. Ezra.
Ezek. Ezekiel.
E. & O.E. Errors and omissions excepted.
Fahr. Fahrenheit.
F.A.M. Free and Acceped Masons.
Far. Farthing.
F.A.S. Fellow of the Antiquarian Society.
fcap. or fep. Foolscap.
F.D. Defender of the Faith.
Fe. Iron, *Ferrum.*
Feb. Februafry.
Fec. He did it, *Fecit.*
Fem. Feminine.
Fem. Ac. or Acad. Female Academy
F.E.S. Fellow of the Entomological Society; of the Ethnological Society.
Feud. Feudal.
F.G.S. Fellow of the Geological Society.
F.H.S. Fellow of the Horticultural Society.
fi. fa. Cause it to be done, *Fieri facias.*
Fid. Def. Defender of the Faith.
Fig. Figure; figurative.
Fir. Firkin.
Fla. Florida.
F.L.S. Fellow of the Linnæan Society.
Fol. Folio.
For. Foreign.
F.P.S. Fellow of the Philological Society.
Fr. Franc; Francs; French; France.
Fr. Fragment.
Fr. Francis; Father; Friar; Frank.
F.R.A.S. Fellow of the Astronomical Society.
F.R.C.S.L. Fellow of the Royal College of Surgeons, London.
Fred. Frederick.
F.R.G.S. Fellow of the Royal Geographical Society.
Fri. Friday.
F.R.S. Fellow of the Royal Society.
Frs. Frisian.
F.R.S.E. Fellow of the Royal Society, Edinburgh.
F.R.S.L. Fellow of the Royal Society, London.
F.R.S.L. Fellow of the Royal Society of Literature.
F.S.A. Fellow of the Society of Arts.
F.S.A.E. Fellow of the Society of Antiquaries, Edinburgh.
Ft. Foot; Feet; Fort.
Fur. Furlong.
F.Z.S. Fellow of the Zoological Society.
G. or g. Guineas.
G.A. General Assembly.
Ga. Georgia.
Gal. Galatians; Gallon.
G.B. Great Britain.
G.C. Grand Chancellor.
G.C. Grand Chapter.
G.C.B. Grand Cross of the Bath.
G.C.H. Grand Cross of Hanover.
G.C.L.H. Grand Cross of the Legion of Honor.
G.E. Grand Encampment.
Gen. Genesis; General.
Gent. Gentleman.
Geo. George.
Geog. Geography.
Geol. Geology.
Geom. Geometry.
Ger. German; Germany.
G.L. Grand Lodge.
Gl. A gloss, *Glossa.*
Glas. Glasgow.
G.M. Grand Master.
G.O. General Order.
Goth. Gothic.
Gott. Gottingen.
Gov. Governor.
Gov.-Gen. Governor-General.
G.R. King George, *Georgius Rex.*
Gr. Greek; Gross.
Gram. Grammar.
Gro. Gross.
Grot. Grotius.
h. Hour.
h.a. This year, *Hoc anno.*
Hab. Habakkuk.
Hab. corp. You may have the body, *Habeas corpus.*
Hag. Haggai.
Ham. Coll. Hamilton College.
H.B.C. Hudson's Bay Company.
H.B.M. His or Her Britannic Majesty.
H.C. House of Commons.
Hdkf. Handkerchief.
H.E. His Eminence.
h.e. That is, or this is, *Hoc est.*
Heb. Hebrews.
Her. Heraldry.
H. Exc. His Excellency.
H.F. Holy Father.
Hf.-bd. Half-bound.
Hg. Mercury, *Hydrargyrum.*
H.H. His Holiness.
Hhd. Hogshead.
Hist. History; Historical.
H.J.S. Here lies buried.
H.L. House of Lords.
H.M. His or Her Majesty.
H.M.P. Erected this monument.
Hon. Honorable.
Hort. Horticulture.
Hos. Hosea.
H.R. House of Representatives.
H.R.E. Holy Roman Emperor.
H.R.H. His or Her Royal Highness.
H.R.I.P. Here he rests in peace.
H.S. Here lies, *Hic situs.*
H.S.H. His Serene Highness.
h.t. This title; In or under this title, *Hoc titulo.*
h.v. This word, *Hoc verbum;* In these words, *His verbis.*
Hund. Hundred.
I, II, III. One, two, three, or, first, second, third.
Ia. Iowa.
Ib. or ibid. In the same place.
Ich. Ichthyology.
Ictus. Counselor at Law.
Id. The same, *Idem.*
Id. Ter. Idaho Territory.
i.e. That is, *Id est.*
I.H.S. Jesus the Savior of men.
ij. Two (*medical*).
Ill. Illinois.
In. Inch; Inches.
incog. Unknown, *Incognito.*
incor. Incorporated.
Ind. Indiana; Index; Indian.
Ind. Ter. Indian Territory.
Indef. Indefinite.
Inf. Beneath or below, *Infra.*
in f. At the end of the title, law or paragraph quoted, *In fine.*
in lim. At the outset, *In limine.*
in loc. In the place; on the passage, *In loco.*
in pr. In the beginning and before the first paragraph of law, *In principio.*
I.N.R.I. Jesus of Nazarath, King of the Jews.
Insp.-Gen. Inspector-General.
Inst. Instant, of this month; Institute.
in sum. In the summary, *In summa.*
Int. Interest; Interpreter.
Interj. Interjection.
Intr. Introduction.
in trans. In the passage, *In transitu.*
Introd. Introduction.
Io. Iowa.
I.O.G.T. Independent Order of Good Templars.
I.O.F. Independent Order of Foresters.
I.O.O.F. Independent Order of Odd-Fellows.
I.O.U. I owe you.
I.q. *Idem quod*, the same as.
Isa. Isaiah.
Isl. Island.
I.S.M. *Jesus Salvator mundi*, Jesus the Savior of the world.
Ital. Italic; Italian.
Itin. Itinerant or Itinerary.
IV. Four or fourth.
IX. Nine or ninth.
J. Justice or Judge. JJ. Justices.
j. One (*medical*).
J.A. Judge-Advocate.
Jac. Jacob.
Jam. Jamaica.
Jan. January.
Jas. James.
J.C.D. *Juris Civilis Doctor*, Doctor of Civil Law.
J.D. *Jurum Doctor*, Doctor of Laws.
Jer. Jeremiah.
Jno. John.
Jona. Jonathan.
Jos. Joseph.
Josh. Joshua.
J.P. Justice of the Peace.
J.Prob. Judge of Probate.
J.R. *Jacobus Rex*, King James.
Jr. or Jun. Junior.
J.U.D. or J.V.D. *Juris utriusque Doctor*, Doctor of both Laws (of the Canon and the Civil Law).

Jud. Judith.
Judg. Judges.
Judge-Adv. Judge-Advocate.
Jul. July; Julius.
Jul. Per. Julian Period.
Jun. June; Junius; Junior.
Jus.P. Justice of the Peace.
Just. Justinian.
J.W. Junior Warden.
K. King.
K.A. Knight of St. Andrew, in Russia.
K.A.N. Knight of St. Alexander Nevskoi, in Russia.
Kas. Kansas.
K.B. King's Bench; Knight of the Bath.
K.B.A. Knight of St. Bento d'Avis, in Portugal.
K.B.E. Knight of the Black Eagle, in Russia.
K.C. King's Counsel; Knight of the Crescent, in Turkey.
K.C.B. Knight Commander of the Bath.
K.C.H. Knight Commander of Hanover.
K.C.S. Knight of Charles III. of Spain.
K.E. Knight of the Elephant, in Denmark.
K.F. Knight of Ferdinand of Spain.
K.F.M. Knight of St. Ferdinand and Merit, in Sicily.
K.G. Knight of the Garter.
K.G.C. Knight of the Grand Cross.
K.G.C.B. Knight of the Grand Cross of the Bath.
K.G.F. Knight of the Golden Fleece, in Spain.
K.G.H. Knight of the Guelphs of Hanover.
K.G.V. Knight of Gustavus Vasa, in Sweden.
K.H. Knight of Hanover; Knights of Honor.
Ki. Kings.
Kil. or kil. Kilderkin.
Kingd. Kingdom.
K.J. Knight of St. Joachim.
K.L. or K.L.A. Knight of Leopold of Austria.
K.L.H. Knight of the Legion of Honor; Knights and Ladies of Honor.
K.M. Knight of Malta.
K.Mess. King's Messenger.
K.M.H. Knight of Merit, in Holstein.
K.M.J. Knight of Maximilian Joseph, in Bavaria.
K.M.T. Knight of Maria Theresa, in Austria.
K.N. Know-Nothing.
Knick. Knickerbocker.
K.N.S. Knight of the Royal North Star in Sweden.
Knt. Knight.
K.P. Knight of St. Patrick Knight of Pythias.
K.R.C. Knight of the Red Cross.
K.R.E. Knight of the Red Eagle, in Prussia.
K.S. Knight of the Sword, in Sweden.
K.S.A. Knight of St. Anne, in Russia.
K.S.E. Knight of *St. Esprit*, in France.
K.S.F. Knight of St. Fernando, in Spain.
K.S.G. Knight of St. George, in Russia.
K.S.H. Knight of St. Hubert, in Bavaria.
K.S.J. Knight of St. Januarius, of Naples.
K.S.L. Knight of the Sun and Lion, in Persia.
K.S.M. & S.G. Knight of St. Michael and St. George, in the Ionian Islands.
K.S.P. Knight of St. Stanislaus, in Poland.
K.S.S. Knight of the Southern Star, in Brazil; Knight of the Sword, in Sweden.
K.S.W. Knight of St. Wladimir, in Russia.
K.T. Knight of the Thistle; Knight Templar.
Kt. Knight.
K.T.S. Knight of the Tower and Sword, in Portugal.
K.W. Knight of William, in the Netherlands.
K.W.E. Knight of the White Eagle, in Poland.
Ky. Kentucky.
L. Fifty or fiftieth; *Liber*, book; Lake.
L, £ or l. *Libra* or *Librae*, Pound or pounds in weight.
L.C. Lord Chancellor; Lord Chamberlain; Lower Canada.
l.c. Lower-case.
L.C.B. Lord Chief Baron.
L.C.J. Lord Chief-Justice.
L.D. Lady-Day.
Ld. Lord.
Ldp. Lordship.
Leg. Legate.
Legis. Legislature.
Lev. Leviticus.
Lex. Lexicon.
L.I. Long Island.
Lib. *Liber*, book.
Lieut. Lieutenant.
Lieut.-Col. Lieutenant-Colonel.
Lieut.-Gen. Lieutenant-General.
Lieut.-Gov. Lieutenant-Governor.
Linn. Linnæan.
Liq. Liquidation.
Lit. Literally; Literature.
Liv. *Livre*, book.
LL.B. *Legum Baccalaureus*, Bachelor of Laws.
LL.D. *Legum Doctor*, Doctor of Laws.
loc. cit. *Loco citato*, in the place cited.
Lon. Longitude.
Lond. London.
L.S. *Locus sigilli*, Place of the seal.
Lt. Lieutenant.
LX. Sixty or sixtieth.
LXX. Seventy or seventieth; The Septuagint (Version of the Old Testament).
LXXX. Eighty or eightieth.
M. *Meridies*, noon.
M. *Mille*, a thousand.
M. or Mons. *Monsieur*, Sir.
M.A. Master of Arts.
Macc. Maccabees.
Mad. Madam.
Mad.Univ. Madison University.
Maj. Major.
Maj.-Gen. Major-General.
Mal. Malachi.
Man. Manasses.
Mar. March.
March. Marchioness.
Marg. Margin.
Marg. Tran. Marginal Translation.
Marq. Marquis.
Masc. Masculine.
Mass. Massachusetts.
Math. Mathematics; Mathematician.
Matt. Matthew.
Max. Maxim.
M.B. *Medicinæ Baccalaureus*, Bachelor of Medicine.
M.B. *Musicæ Baccalaureus*, Bachelor of Music.
M.B.G. et H. *Magna Britannia, Gallia et Hibernia*, Great Britain, France, and Ireland.
M.C. Member of Congress.
Mch. March.
M.D. *Medicinæ Doctor*, Doctor of Medicine.
Md. Maryland.
Mdlle. or Mlle. *Mademoiselle.*
Mdse. Merchandise.
M.E. Methodist Episcopal; Military or Mechanical Engineer.
Me. Maine.
Mech. Mechanics, or Mechanical.
Med. Medicine.
Mem. Memorandum. *Memento*, remember.
Merc. Mercury.
Messrs. or MM. *Messieurs*, Gentlemen.
Met. Metaphysics.
Metal. Metallurgy.
Meteor. Meteorology.
Meth. Methodist.
Mex. Mexico, or Mexican.
M.-Goth. Mœso-Gothic.
M.H.S. Massachusetts Historical Society; Member of the Historical Society.
Mic. Micah.
Mich. Michigan.
Mil. Military.
Mil. Acad. Military Academy.
Min. Mineralogy; Minute.
Minn. Minnesota.
Min. Plen. Minister Plenipotentiary.
Miss. Mississippi.
M.L.A. Mercantile Library Association.
MM. Their Majesties; *Messieurs*, Gentlemen; Two thousand.
M.M.S. Moravian Missionary Society.
M. M. S. S. *Massachusettensis Medicinæ Societatis Socius*, Fellow of the Massachusetts Medical Society.
Mo. Missouri; Month.
Mod. Modern.
Mon. Monday.
Mons. *Monsieur*, Sir.
Mos. Months.
Mont.Ter. Montana Territory.
M.P. Member of Parliament; Metropolitan Police.
M.P.P. Member of Provincial Parliament.
M.R. Master of the Rolls.
Mr. Mister.
M.R.A.S. Member of the Royal Asiatic Society; Member of the Royal Academy of Science.
M.R.C.C. Member of the Royal College of Chemistry.
M.R.C.S. Member of the Royal College of Surgeons.
M.R.G.S. Member of the Royal Geographical Society.
M.R.I. Member of the Royal Institute.
M.R.I.A. Member of the Royal Irish Academy.
Mrs. Mistress.
M.R.S.L. Member of the Royal Society of Literature.
M.S. *Memoriæ sacrum*, Sacred to the Memory; Master of the Sciences.
MS. *Manuscriptum*, Manuscript.
MSS. Manuscripts.
Mt. Mount or Mountain.
Mus.B. Bachelor of Music.
Mus.D. Doctor of Music.
M.W. Most Worthy; Most Worshipful.
Myth. Mythology.
N. North; Number; Noun; Neuter.
n. Note.
N.A. North America.
Nah. Nahum.
Nat. Natural.
Nat. Hist. Natural History.
Nath. Nathanael or Nathaniel.
N.B. New Brunswick; North British; *Nota bene*, mark well, take notice.
N.C. North Carolina; New Church.
N.E. New England; Northeast.
Neb. Nebraska.
Neh. Nehemiah.
n.e.i. *Non est inventus*, He is not found.
nem. con. or nem. diss. *Nemine contradicente*, No one opposing; Unanimously.
Neut. Neuter (gender).
Nev. Nevada.
New Test. or N.T. New Testament.
N.F. Newfoundland.
N.G. New Grenada; Noble Grand.
N.H. New Hampshire; New Haven.
N.H.H.S. New Hampshire Historical Society.
Ni.pri. *Nisi prius* (law).
N.J. New Jersey.
n.l. *Non liquet*, It does not appear.
N.lat. North latitude.
N.Mex. New Mexico.
N.N.E. North-Northeast.
N.N.W. North-Northwest.
N.O. New Orleans.
No. *Numero*, number.
Nol.pros. *Nolens prosequi*, I am unwilling to prosecute.
Nom. or nom. Nominative.
Non con. Not content; dissenting (House of Lords).
Non cul. *Non culpabilis*, Not guilty.
Non obst. *Non obstante*, notwithstanding.
Non pros. *Non prosequitur*, He does not prosecute.
Non seq. *Non sequitur*, It does not follow.
Nos. Numbers.
Nov. November.
N.P. Notary Public; New Providence.
N.S. New Style (after 1752); Nova Scotia.
N.T. New Testament.
N.u. Name or names, unknown.
Num. Numbers; Numeral.
N.V.M. Nativity of the Virgin Mary.
N.W. Northwest.
N.W.T. Northwestern Territory.
N.Y. New York.
N.Y.H.S. New York Historical Society.
O. Ohio.
Ob. *Obiit*, He (or she) died.
Obad. Obadiah.
Obj. Objection; Objective.
O.K. A slang phrase for "All correct."
Obt. Obedient.
Oct. October.
O.F. Odd-Fellow, or Odd-Fellows.
O.F.P. Order of Friar Preachers.
Old Test. or O.T. Old Testament.
Olym. Olympiad.
Ont. Ontario.
Opt. Optics; Optical; Optional.
Or. Oregon.
Ord. Ordinance; Order; Ordnance; Ordinary.
Orig. Originally.
Ornith. Ornithology.
O.S. Old Style (before 1752).
O.S.F. Order of St. Francis.
O.T. Old Testament.
O.U.A. Order of United Americans.
Oxf. Oxford.
Oxon. *Oxoniensis*, *Oxonii*, of Oxford, at Oxford.
Oz. Ounce.
P. *Pondere*, by weight.
P. or p. Page; Part; Participle.
Pa. Pennsylvania.
Pal. Palæontology.
Par. Paragraph.
Par. Pas. Parallel passage.

Parl. Parliament.
Pathol. Pathology.
Payt. Payment.
Pb. *Plumbum*, Lead.
P.B. *Philosophiæ Baccalaureus*, Bachelor of Philosophy.
P.C. *Patres Conscripti*, Conscript Fathers; Senators.
P.C. Privy Council; Privy Councillor.
P.D. *Philosophiæ Doctor*, Doctor of Philosophy.
Pd. Paid.
P.E. Protestant Episcopal.
P.E.I. Prince Edward Island.
Penn. Pennsylvania.
Pent. Pentecost.
Per. or pr. By the.
Per an. *Per annum*, by the year.
Per cent. *Per centum*, by the hundred.
Peri. Perigee.
Pet. Peter.
P.G. Past Grand.
Phar. Pharmacy.
Ph.B. *Philosophiæ Baccalaureus*, Bachelor of Philosophy.
Ph.D. *Philosophiæ Doctor*, Doctor of Philosophy.
Phil. Philip; Philippians; Philosophy, Philemon.
Phila. or Phil. Philadelphia.
Philom. *Philomathes*, Lover of learning.
Philomath. *Philomathematicus*, A lover of mathematics.
Phil.Trans. Philosophical Transactions.
Phren. Phrenology.
P.H.S. Pennsylvania Historical Society.
Pinx. *Pinxit*, He (or she) painted it.
Pk. Peck.
Pl. or plur. Plural.
Plff. Plaintiff.
P.M. *Post meridiem*, Afternoon, Evening; Postmaster; Passed Midshipman; Paymaster.
P. M. G. Postmaster-General.
P.O. Post-office.
Poet. Poetical.
Pop. Population.
Port. Portugal; Portuguese.
Pos. Position; Positive; Possession.
P.P. *Pater Patriæ*, Father of his Country; Parish Priest.
P.P.C. *Pour prendre congé*, to take leave.
Pp. or pp. Pages.
Pph. Pamphlet.
Pr. By.
P.R. *Populus Romanus*, the Roman People; Porto Rico; Proof reader; Prize Ring.
P.R.A President of the Royal Academy.
P.R.C. *Post Romam conditam*, After the building of Rome.
Pref. Preface.
Prep. Preposition.
Prot. Protestant.
Pro tem. *Pro tempore*, for the time being.
Prov. Proverbs; Provost.
Prox. *Proximo*, next (month).
P.R.S. President of the Royal Society.
P.S. *Post scriptum*, Postscript.
P.S. Privy Seal.
Ps. Psalm or Psalms.
Pt. Part; Pint; Payment; Point; Port; Post-town.
Pub. Publisher; Publication; Published; Public.
Pub. Doc. Public Documents.
P.v. Post-villa.
Pwt. Pennyweight; Pennyweights.
Pxt. *Pinxit*, He (or she) painted it.
Q. Queen.
q. *Quasi*, as it were; almost.
Q.B. Queen's Bench.
Q.C. Queen's College; Queen's Counsel.
q.d. *Quasi dicat*, as if he should say; *quasi dictum*, as if said; *quasi dixisset*, as if he had said.
q.e. *Quod est*, which is.
q.e.d. *Quod erat demonstrandum*, which was to be proved.
q.e.f. *Quod erat faciendum*, which was to be done.
q.e.i. *Quod erat inveniendum*, which was to be found out.
q.l. *Quantum libet*, as much as you please.
Q.M. Quartermaster.
qm. *Quomodo*, how; by what means.
Q.M.G. Quartermaster-General.
q p or q.pl. *Quantum placet*, as much as you please.
Qr. Quarter.
Q.S. Quarter-sessions; Quarter-section.
q.s. *Quantum sufficit*, a sufficient quantity.
Qt. Quart.
qu. or qy. *Quære*, inquire, query.
Quar. Quarterly.
Ques. Question.
q.v. *Quod vide*, which see; *quantum vis*, as much as you will.
R. *Recipe*, Take; *Regina*, Queen; *Rex*, King; River; Rod; Road; Rises.
R.A. Royal Academy; Royal Academician; Royal arch; Royal Arcanum; Royal Artillery.
R.C. *Rescriptum*, A rescript, Re-written.
R.E. Royal Engineers.
Rec. Recipe; Recorder.
Recd. Received.
Rec. Sec. Recording Secretary.
Rect. Rector; Receipt.
Ref. Reference; Reform.
Ref. Ch. Reformed Church.
Reg. Register; Regular.
Reg. Prof. *Regius Professor*.
Regr. Registrar.
Regt. Regiment.
Rel. Religion.
Rep. Representative; Reporter; Republic.
Rev. Reverend; Revelation (Book of); Review; Revenue; Revise.
Rhet. Rhetoric.
R.I. Rhode Island.
Richd. Richard.
R.I.H.S. Rhode Island Historical Society.
R.M. Royal Marines; Royal Mail.
R.M.S. Royal Mail Steamer.
R.N. Royal Navy.
R.N.O. *Riddare af Nordstjerne Orden*, Knight of the Order of the Polar Star.
Ro. *Recto*, Right-hand page.
Robt. Robert.
Rom. Romans (Book of).
Rom. Cath. Roman Catholic.
R.P. *Regius Professor*, the King's Professor.
RR. Railroad.
R.S. Recording Secretary.
Rs. *Responsum*, Answer; *Respondere*, To answer.
R.S.A. Royal Society of Antiquaries; Royal Scottish Academy.
R.S.D. Royal Society of Dublin.
R.S.E. Royal Society of Edinburgh.
R.S.L. Royal Society of London.
R.S.V.P. *Respondez s'il vous plait*, Answer if you please.
Rt. Hon. Right Honorable.
Rt. Rev. Right Reverend.
Rt. Wpful. Right Worshipful.
R.W. Right Worthy.
R.W.O. *Riddare af Wasa Orden*, Knight of the Order of Wasa.
S. South; Saint; Scribe; Sulphur; Sunday; Sun; Series.
S. *Solidus*, A shilling.
S.A. South America; South Africa; South Australia.
s.a. *Secundum artem*, According to art.
Sam. Samuel.
Sansc. Sanscrit.
S.A.S. *Societatis Antiquariorum Socius*, Fellow of the Society of Antiquaries.
Sat. Saturday.
Sax. Saxon.
Sax. Chron. Saxon Chronicle.
S.C. *Senatus consultum*, A decree of the Senate; South Carolina.
Sc. He (or she) engraved it.
sc. or scil. Namely.
Scan. Mag. Scandal, *Scandalum magnatum*; or, Great scandal, *Scandalum magnum*.
S. caps. Small capitals.
Schol. A note, *Scholum*.
Schr. Schooner.
Sci.fa. Make known (legal), *Scire facias*.
Sclav. Sclavonic.
Scot. Scotland.
Sculp. or sculp. He (or she) engraved it, *Sculpsit*.
S.D. Sends health, *Salutem dicit*.
S.D. Doctor of Science.
S.E. Southeast.
Sec. Secretary; Second; Section.
Sec. Leg. Secretary of Legation.
Sec. leg. According to law.
Sec. reg. According to rule.
Sect. Section.
Sem. It seems.
Sen. Senate; Senator; Senior.
Sept. September; Septuagint.
Seq. Following, *Sequentia*; It follows, *Sequitur*.
Ser. Series.
Serg. Sergeant.
Serg.-Maj. Sergeant-Major.
Servt. Servant.
S.G. Solicitor-General.
Shak. Shakspere.
S.H.S. Fellow of the Historical Society.
Sing. Singular.
S.Isl. Sandwich Islands.
Sist. Sister.
S.J. Society of Jesus.
S.J.C. Supreme Judicial Court.
Skr. Sanscrit.
S.L. Solicitor at Law.
Sld. Sailed.
S.Lat. South Latitude.
S.M. State Militia; Short Meter; Sergeant-Major; Sons of Malta.
S.M. Lond. Soc. Cor. Corresponding Member of the London Medical Society.
s.n. According to nature, *Secundum naturam*.
Soc. Isl. Society Islands.
Sol. Solomon; Solution; Solicitor.
Sol.-Gen. Solicitor-General.
S. of Sol. Song of Solomon.
S.P. Without issue, *Sine prole*.
Sp. Spain.
S.P.A.S. Member of the American Philosophical Society.
S.P.G. Society for the Propagation of the Gospel.
Sp.gr. Specific gravity.
S.P.Q.R. The Roman Senate and People.
Sq.ft. Square foot or square feet.
Sq.in. Square inch or inches.
Sq.m. Square mile or miles.
Sq.r. Square rood or roods.
Sq.yd. Square yard.
Sr. Sir or Senior; Sister.
S.R.I. Holy Roman Empire.
S.R.S. Fellow of the Royal Society.
S.S. Sunday-school.
SS. Saints.
SS. or ss. To-wit, *Scilicet*.
ss. Half, *Semis*.
S.S.E. South-southeast.
S.S.W. South-southwest.
St. Saint, Street; Strait.
Stat. Statute.
S.T.D. Doctor of Sacred Theology.
Ster. or Stg. Sterling.
S.T.P. Professor of Sacred Theology.
Su. Sunday.
Subj. Subjective.
Subst. Substantive.
Su. Goth. Suio-Gothic.
Sun. or Sund. Sunday.
Sup. Supplement; Superfine; Superior.
Supt. Superintendent.
Surg. Surgeon; Surgery.
Surg.-Gen. Surgeon-General.
Surv. Surveyor.
Surv.-Gen. Surveyor-General.
Sus. Susannah.
s.v. Under the word or title, *Sub verbo*.
S W. Southwest.
Syn. Synonym; Synonymous.
T. Territory.
T. All together, *Tutti*.
T. or Tom. Tome; Volume.
T.E. Topographical Engineers.
Tenn. Tennessee.
Ter. Territory.
Tex. Texas.
Text. Rec. The Received Text.
Th. or Thurs. Thursday.
Theo. Theodore.
Theol. Theology; Theological.
Theoph. Theophilus.
Thess. Thessalonians.
Tho'. Though.
Thos. Thomas.
Thro'. Through.
Thurs. Thursday.
Tim. Timothy.
Tit. Titus.
T.O. Turn over.
Tob. Tobit.
Tom. Volume.
Topog. Topography; Topographical.
Tr. Transpose; Translator; Translation.
Tr., Trs. Trustee, Trustees.
tr. A shake, *Trillo*.
Trans. Translator; Translation; Transactions.
Treas. Treasurer.
Trin. Trinity.
Tues. or Tu. Tuesday.
Typ. Typographer.
U.C. Year of Rome.
U.E.I.C. United East India Company.
U.J.C. Doctor of both Laws (Civil and Canon).
U.K. United Kingdom.
ult. Last; of the last month, *Ultimo*.
Unit. Unitarian.
Univ. University.
U.S. United States.
u.s. As above, *Ut supra* or *uti supra*.
U.S.A. United States Army.
U.S.A. United States of America.
U.S.M. United States Mail.
U.S.M. United States Marine.
U.S.M.A. United States Military Academy.
U.S.N. United States Navy.
U.S.N.A. United States Naval Academy.
U.S.S. United States Senate.
U.T. Utah Territory.

V. Five or fifth.
V. Violin. VV. Violins.
v. or vid. See, *Vide.*
v. or vs. Against; In such a way: *Versus*; *Versiculo.*
V.A. Vicar Apostolic.
V. Adml. Vice-Admiral.
Va. Virginia.
Vat. Vatican.
V.C. Vice-Chancellor.
V.C. Vice-Consul.
V.C.G. Vice-Consul-General.
V.D.M. Minister of God's Word.
Ven. Venerable.
Ver. Verse; Version.
V.F. Vicar-Forane.
V.G. Vicar-General.
v.g. As for example, *Verbi Gratia.*
VI. Six or Sixth.
VII. Seven or Seventh.
VIII. Eight or Eighth.
Vic.-Ap. Vicar-Apostolic.
Vic.-Gen. Vicar-General.
Vice-Pres., or V.P. Vice-President.
Vil. Village.
Visc. Viscount.
viz. or vl. To wit; Namely; That is to say: *Videlicet.*
Vo. Left hand page, *Verso.*
Vol. Volume.
V.R. Queen Victoria, *Victoria Regina.*
V.R. Very Reverend.
V.S. Veterinary Surgeon.
Vt. Vermont.
Vul. Vulgate (Latin version of the Bible).
W. West.
Wash. Washington.
W.Ter. Washington Territory.
Wed. Wednesday.
West. Res. Col. Western Reserve College.
w.f. Wrong font.
Whf. Wharf.
W.I. or W.Ind. West India.
Wisc. Wisconsin.
Wisd. Wisdom (Book of).
Wk. Week.
W.Lon. West longitude.
W.M. Worshipful Master.
Wm. William.
W.M.S. Wesleyan Missionary Society.
W.N.W. West-northwest.
Wpful. Worshipful.
W.S. Writer to the Signet.
W.S.W. West-southwest.
W.T. Wyoming Territory.
X. Ten or tenth.
X. or Xt. Christ.
XI. Eleven.
XII. Twelve.
XIII. Thirteen.
XIV. Fourteen.
XV. Fifteen.
XVI. Sixteen.
XVII. Seventeen.
XVIII. Eighteen.
XIX. Nineteen.
XX. Twenty.
XXX. Thirty.
XL. Forty.
XC. Ninety.
Xmas or Xm. Christmas.
Xn or Xtian. Christian.
Xnty or Xty. Christianity.
Xper or Xr. Christopher.
Yd. Yard.
y. or ye. The.
ym. Them.
yn. Then.
yr. Their; Your.
ys. This.
yt. That.
Y.M.C.A. Young Men's Christian Association.
Y. M. Cath. A. Young Men's Catholic Association.
Yrs. Years; Yours.
Zach. Zachary.
Zech. Zechariah.
Zeph. Zephaniah.
Zool. Zoology.
&. And.
&c. And the rest; And so forth: *Et cætera.*





ALPHABETICAL INDEX

OF PRINCIPAL SUBJECTS.

NOTE.— It has been deemed unnecessary to repeat, in this summary of contents, those topics which have been arranged in alphabetical order in various departments of the work. A glance at the Table of Contents will enable the reader to determine under which heading any subject of reference not named in the following pages may be found.

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